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ABSTRACT

This packet contains many of the elements of the earlier publications, "The Mini-Economy: Integrating Economics into the Elementary Curriculum" and "Teaching Economics in the Mini-Economy." This revised edition offers a new section on implementing the mini-economy in the middle school. The classroom mini-economy is a proven, effective method of promoting innovation in teaching and learning economics by involving students in activities to simulate real world economic activity. Chapters of the book include: (1) "The Mini-Economy; (2) "What Economics Is About"; (3) "How to Start a Mini-Economy"; (4) "Expanding Your Mini-Economy"; (5) "Teaching Economics in the Mini-Economy Classroom"; (6) "Making Your Mini-Economy More Effective"; and (7) "Using the Mini-Economy in the Middle School." Five appendices offer: (1) "Reproducible Mini-Economy Aids"; (2) "Student Worksheets"; (3) "Indiana Curriculum Guidelines in Economics"; (4) "Annotated Bibliography of Selected Curriculum Materials"; and (5) "Inservice Opportunities." (Annotated bibliography contains 13 references.) (EH)

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The Classroom Mini-Economy

Integrating Economics
into the
Elementary and Middle School Curriculum

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"People who are highly motivated to learn generally do learn; those who are not motivated seldom do . . . . Without effective student motivation, nothing else matters much."

G. L. Bach

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Introduction

> ***The Classroom Mini-Economy**: a form of economics instruction in which students participate in a classroom economy in order to simulate real world economic activity.*

Today's rapidly changing and highly interdependent society requires, perhaps as never before, learned, productive, and educationally-motivated citizens. The mini-economy is a form of instruction which prepares students to meet the requirements of such a society. The mini-economy also acts as an effective means of teaching important economic principles and life skills. While learning these principles and skills, students apply the knowledge and expertise learned in other disciplines. This results in a more integrated and consequently more relevant curriculum. Students become genuinely enthusiastic about learning.

During the past ten years, the mini-economy has flourished throughout Indiana. Each year hundreds of teachers and thousands of Hoosier students participate in classroom mini-economies. Interest also has grown outside Indiana, and teachers in many other states are using the mini-economy program.

Two booklets published by the Indiana Department of Education, *The Mini-Economy: Integrating Economics into the Elementary Curriculum* and *Teaching Economics in the Mini-Economy*, have been very useful to teachers who have implemented mini-economies in their classroom. The former described how to start and expand a mini-economy, while the latter emphasized how to use the mini-economy to teach basic economic principles outlined in the *Indiana Social Studies Proficiency Guide*.

This new booklet, *The Classroom Mini-Economy,* combines these two booklets into one comprehensive publication. It contains many of the elements that made the first booklets so popular and includes a new section on implementing the mini-economy in the middle school.

One of the goals of the Indiana Department of Education is to promote innovation in teaching and learning. The classroom mini-economy is a proven, effective method of accomplishing this goal. To that end, the Department hopes that many teachers will use this new publication to implement mini-economies in their classrooms.

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Chapter 1

The Mini-Economy

Decisions, Decisions

John wasn't sure what to do. As he trudged home from school that afternoon, his mind analyzed the many factors that would affect his decision. He knew he could produce better bookmarks than those Susan and Maria were making. After all, he had access to better productive resources. His older brother had a computer program that produced unique designs, and his friend, Amy, was the best artist in the class. He could hire her to create custom designed bookmarks. Also, the rent he would have to pay Andy for a table and chairs to set up his business was reasonable. True, customizing his bookmarks would mean rather high production costs. He would have to charge a higher price than the other bookmark business, but he was confident his classmates would pay that much.

No, his main concern was Eddie. Eddie wanted him to be a partner in a desk cleaning service. Eddie had conducted a market survey and was convinced that there was enough demand for each of the boys to make $40 a week operating the business. If that were true, the opportunity cost of operating his own bookmark business might be too great. It just wouldn't be worth it.

He would have to make a decision by tomorrow. Eddie wouldn't wait any longer. Maybe Mom and Dad would have some suggestions . . .

The dilemma facing John is not unusual for elementary students participating in a classroom mini-economy. In this unique form of instruction, students frequently encounter situations that provide the opportunity to relate economic terms and concepts to real classroom situations. The learning that takes place in such a dynamic and motivating environment can transcend the learning that takes place in more traditional educational settings.

What is a Mini-Economy?

> ***The mini-economy is a form of economics instruction in which students participate in a classroom economy in order to simulate real world economic activity.***

In a mini-economy, students earn play money in a variety of ways and spend it at a class store, class auction, or at stores operated by their classmates. Although mini-economy activities vary widely, students typically apply for classroom jobs, run businesses, pay taxes, buy rental properties, and make investments. The mini-economy is, in effect, a miniature economic system operating within the regular classroom.

The Four Basic Elements of a Mini-Economy

There are four basic elements common to most mini-economies:

- ***Economics Instruction***
- ***Classroom Management***
- ***Application of Basic Skills***
- ***Money Management***

These elements are illustrated in Figure 1-1 and are explained more fully throughout this chapter.

Why Use a Mini-Economy?

There are at least six compelling reasons for using the mini-economy form of instruction. These are described below.

☞ Reason 1: The Mini-Economy Helps Teach Economic Concepts

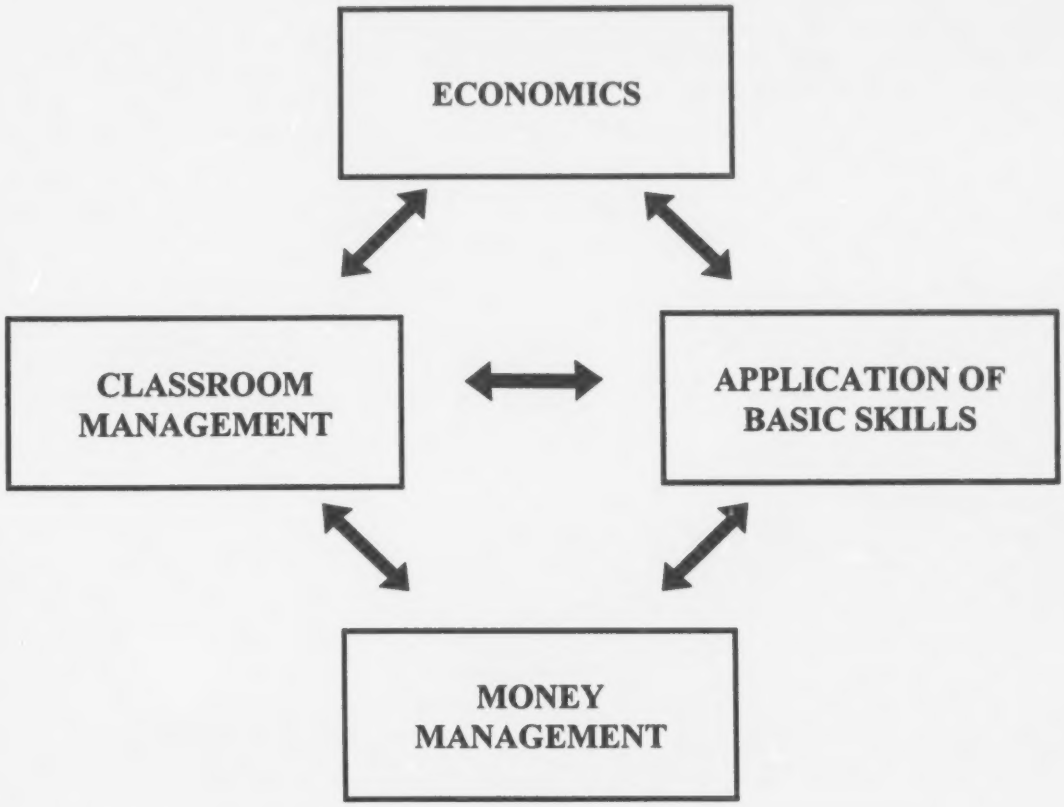
Although economics is an integral part of the elementary social studies curriculum, economics instruction is frequently ignored. An extensive random survey of economic literacy in Indiana revealed that an average of only four percent of the elementary teachers planned to spend an hour

or more per week teaching economics separately or in conjunction with other subjects.[1]

The mini-economy helps fill the void in the elementary social studies curriculum created by minimal instruction in economics. A vibrant mini-economy provides many opportunities for teaching important economic concepts such as scarcity, opportunity cost, money, productivity, specialization, supply and demand, trade, profit, and inflation. Furthermore, in a mini-economy these concepts are not taught in isolation, but are presented in a realistic, integrated setting.

Figure 1-1

Four Basic Elements of a Mini-Economy



[1] Michael Watts, " Empirical Evidence on Economic Literacy in Schools," *Economics Education: Research and Development Issues.* (Papers presented at the International Research Seminar held at the University of London Institute of Education, July/August 1985), pgs. 187-205.

☞ Reason 2: The Mini-Economy Integrates Easily into the Rest of the Curriculum

For teachers concerned about the lack of instructional time in an already crowded curriculum, this is a very important consideration. Time spent on the mini-economy typically is considered part of the social studies curriculum; however, many teachers use mini-economy activities to strengthen their instruction in mathematics, art, music, and language arts.

For example, students must use math skills when keeping savings and checking records, computing taxes, recording business transactions, and engaging in day-to-day economic transactions. Language arts skills are strengthened when students complete job applications, write advertisements, and compose thank you notes to community people who become involved in mini-economy activities. Vocabulary, spelling, and writing themes also can center around mini-activity activities.

Mini-economy activities are also ideal for applying fine arts skills. Many items produced by classroom businesses, such as bookmarks, pot holders, greeting cards, and decorations, make excellent art projects. Students also develop their artistic skills when designing signs and posters for advertising. Musical creativity is encouraged as students write advertising jingles or compose songs that describe their work efforts.

Many teachers use mini-economy activities to improve computer skills. Students use computers to keep bank records and business accounts, to design products such as note cards and bookmarks, and to aid in written correspondence with the community. The Indiana Department of Education has developed a software program, *The Mini-Economy Banking Program,* which helps students manage their banking records. For purchase information, write the Wilson Education Center, 11440 Highway 62, Charlestown, IN 47111 or phone (812) 256-8000.

☞Reason 3: The Mini-Economy Improves Student Learning

The mini-economy conforms to what we know about learning theory. Marilyn Kourilsky identifies three important learning principles that are applied by participation in a mini-economy.[2]

1. **Real** as opposed to **vicarious** experience
2. **Active** rather than **passive** roles in the learning situation
3. **Actual decision-making** and **bearing the consequences** of those decisions

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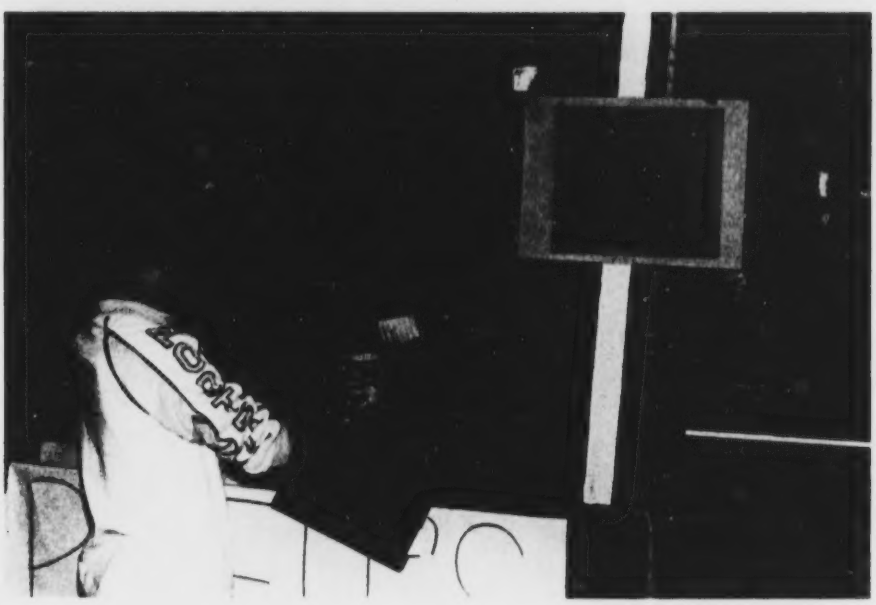
[2] Marilyn Kourilsky, *Beyond Simulation: The Mini-Society Approach to Instruction in Economics and Other Social Sciences*, (Los Angeles: Education Resource Associates, 1974), pgs. 2-3.

Instead of being passive listeners, students become active participants and decision-makers in an economic system that is very real to them. They do not merely *learn about* an economic system - they actually experience one. In doing so, they use many of the higher level cognitive skills, such as application, analysis, synthesis, and evaluation, which are sometimes overlooked in traditional instruction.

An experience of a certain fifth grade student in an Indiana classroom illustrates these points. This student was the only boy in the class who owned a popular hand-held electronic game that was very popular with his classmates. He discovered that he could earn a very high income by renting the game to his classmates before school and during recess. Unfortunately, the good times didn't last. Seeing his profits, his classmates requested similar games for Christmas. After the holidays, the supply of electronic games mushroomed. To make matters worse, the newer games were much more popular than his old one. To compete, he had to cut his rental fees dramatically. This student experienced in a very real way the effects of supply, demand, and competition on prices and profits. The lessons he learned would not easily be forgotten.



☞ Reason 4: The Mini-Economy Models Our Economic System

By participating in an ongoing classroom economy, students get a better feel for how the overall economic system fits together. Michael Watts and William Walstad noted that even students who

understand some basic economic concepts may not have an accurate view of the economy as a whole.[3]

> There is disturbing evidence that, when students are exposed to economic instruction through a K-12 infusion approach, they do not acquire an overview of how individual concepts fit together into a meaningful whole. This situation is most apparent when students have not taken a capstone economics course.

The mini-economy helps alleviate this lack of understanding. One teacher who used a mini-economy wrote:

> The unit does require a lot of time and work, but it was very fulfilling and worthwhile in my class and gave me a concrete example to relate economics to. *Students were able to understand because they were seeing a system work.*

[3] Michael Watts and William Walstad, "Economics Instruction in Our Schools," *The Balance Sheet*, 66 (March/April 1985), p. 14.

☞ Reason 5: The Mini-Economy is a Tremendous Motivator

Almost without exception, students enjoy participating in a mini-economy since it adds an element of realism to learning. Day-to-day classroom decisions result in very visible and real consequences as students analyze and react to new situations and dilemmas. In doing so, students apply the basic academic skills they have mastered during their years in school. The importance of student motivation cannot be overstated. As economist Gary Bach points out, *"People who are highly motivated to learn generally do learn; those who are not motivated seldom do . . . . Without effective student motivation, nothing else matters much."*[4]

A teacher from Goshen, Indiana, wrote recently:

> I have a difficult group of students this year. Many of them came hating school. Mini-Economy is the one thing we do where everyone is engaged and excited about learning. One boy said he can't sleep the night before we have Mini-Economy because he's so excited about all his ideas! It doesn't get any better than that.

The mini-economy also motivates teachers, who discover much enjoyment and professional satisfaction in establishing mini-economies, and frequently persuade their colleagues to get involved. The mutual support and exchange of ideas among these teachers provide healthy and motivating professional interaction.

☞ Reason 6: The Mini-Economy Helps Students Learn How to Manage Money

Participation in a mini-economy helps students learn important money management skills they need to know as adults. In a mini-economy, students learn from their mistakes and failures without dire consequences. By handling money daily in a variety of mini-economy transactions, students learn:

- That one must work to earn income.
- How to stay within a budget.
- How to save money for future purchases.
- That loans must be repaid, usually with interest.
- That bills and taxes must be paid before other consumer purchases are made.
- That every consumer decision has an opportunity cost.

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[4] Gary Bach, "What Should a Principles Course in Economics Be?," *Goals and Objectives of the Introductory College-Level Course in Economics*, Edited by Allen F. Larsen and Andrew T. Nappi (Federal Reserve Bank of Minneapolis, 1979), pgs. 15-18.

Parents especially appreciate this benefit of the mini-economy. One mother and father wrote just recently to their daughter's teacher:

> Our daughter Jackie was thrilled by her experience in mini-economies. We were thrilled by the pleasure we saw her experiencing in school. No longer was school just a chore of learning fundamentals, but now it was a place to put into practice the fundamentals already learned. Who knew school could be this much fun? Jackie didn't know, but now she does.

Types of Mini-Economies

No two mini-economies are ever exactly alike. They may vary considerably, depending upon the individual teacher and the particular instructional situation. Despite this variation, it is still possible and helpful to identify two basic criteria which help classify the different types of mini-economies: 1. Teacher-Directed vs. Student-Directed and 2. Degree of Complexity.

☞ Criterion 1: Teacher-Directed vs. Student Directed

The first criterion addresses the extent to which the economic activity within the mini-economy is either **teacher-directed** or **student-directed**. In the former, the teacher determines the specific businesses, jobs, and governing bodies that will exist. The students then operate within these structures. Bennett's *Micro-Place* is an example of a teacher-directed mini-economy.[5]
In a student-directed mini-economy, the students are more influential in determining how the classroom economy operates. The teacher takes a more passive role, in some cases assuming the role of a paid "consultant." It is the students who typically determine what, if any, types of behavior will earn income, what laws will govern the economy, and what products and services will be produced and sold by the student-operated businesses.

The Mini-Society, developed by Marilyn Kourilsky is a good example of a student-directed mini-economy.[6] The teacher's main function is to help students analyze predictable economic "dilemmas" that occur within the mini-economy. It is this analysis which constitutes the backbone of formal economics instruction. For example, a dilemma frequently encountered by students is whether or not anyone will want to buy a product they want to produce. In a debriefing session, the teacher analyzes this problem with the students, explaining to them the value of a market survey and how to perform one. This leads naturally to a discussion of demand and factors which change demand.

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[5] S. Bennett, *The Micro-Place Social Studies Curriculum*, Unpublished manuscript, (Institute for Child Study, University of Maryland).

[6] Marilyn Kourilsky, *Beyond Simulation: The Mini-Society Approach to Instruction in Economics and Other Social Sciences*, (Reading, MA: Addison Wesley, 1983)

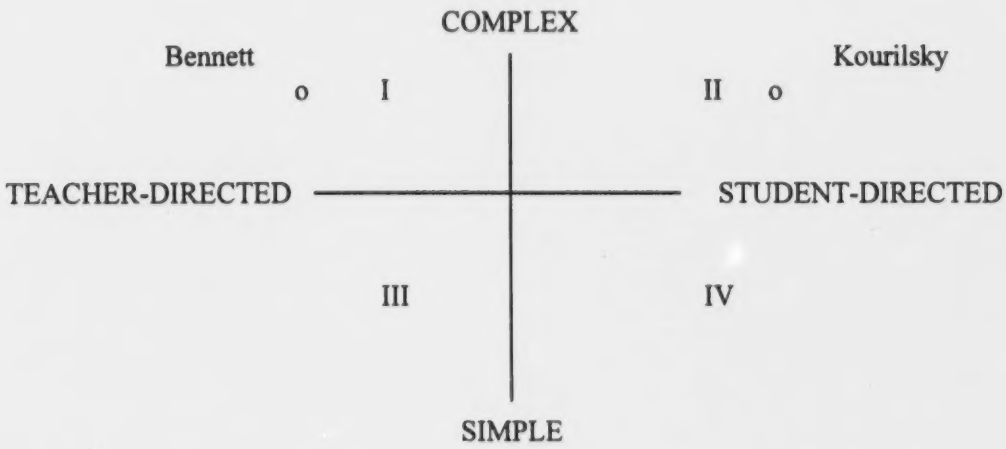
☞ Criterion 2: Degree of Complexity

The second criterion that can be used to classify mini-economies is the **degree of complexity**. Some mini-economies are very simple, involving minimal economic activity. More complex mini-economies may include banks, real estate agencies, insurance companies, and many other businesses. There also may be a tax-financed class government, including a legal system, a legislative body, police protection, and a postal service. Whole schools are sometimes organized into mini-societies. The most prominent examples are probably George Richmond's "Micro-Society" schools.[7]

Figure 1-2 may be helpful in identifying various types of mini-economies. To what extent a mini-economy is teacher or student-directed is indicated on the X axis and the degree of complexity on the Y axis. Using these criteria, one can easily "plot" a mini-economy in the appropriate quadrant. Kourilsky's Mini-Society is placed in quadrant II, indicating a rather complex, student-directed economy. Bennett's *Micro-Place* falls higher in quadrant I, indicating a complex, teacher-directed economy.

Figure 1-2

Types of Mini-Economies



[7] Meg Sommerfeld, "Micro-Society Schools Tackle Real-World Woes," *Education Week*, XII, Number 13 (December 2, 1992), p. 1.

Which Kind of Mini-Economy is Best?

Which mini-economy "combination" in the diagram above is best? It depends. A teacher who wants to emphasize economics instruction or who gets "hooked" on the mini-economy form of instruction probably will prefer a more complex mini-economy. However, implementing a complex mini-economy requires some additional time and a definite commitment. If this is not desirable or practical, a simpler mini-economy may be preferable.

Are student-directed mini-economies better than teacher-directed ones? The limited research on this subject indicates that students who participate in student-directed mini-economies develop more autonomy, assertiveness, and economic understanding than students who participate in teacher-directed ones.[8] However, a student-directed economy may not develop the desired degree of realism and complexity or meet other desired goals. Also, teacher-directed mini-economies are easy to implement and control, and are practical for most learning situations.

It is important to realize that most mini-economies do not exhibit definite characteristics which define them precisely as either student or teacher-directed. There are usually elements of both. Teachers will want to develop mini-economies which fit their own needs and instructional preferences.

Token Economies

The term "**token economy**" refers to a classroom economy in which the activities are used *primarily* to facilitate classroom management. These types of economies, which have their intellectual roots in behavioral psychology, are usually very teacher-directed. In a typical token economy, the teacher rewards students with classroom money ("tokens") for certain types of desired behavior. Students might be given $5 for each assignment completed on time, for walking quietly in the halls, or for a neat and tidy desk at the end of the school day. There may even be stores, banks, and other kinds of mini-economy activities; but *the primary aim of a token economy is to help the teacher manage the classroom more effectively - not teach economics.*

Other educators object to token economies on more philosophical grounds. They believe that students should not be "paid" for doing things that are required as classroom routine. Teachers who agree with this objection usually pay students for jobs only in their mini-economies and avoid payment for any behavior.

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[8] Marilyn Kourilsky and Jack Hirshliefer, "Mini-Society vs. Token Economy: An Experimental Comparison of the Effects on Learning and Autonomy of Socially Emergent and Imposed Behavior Modification," *The Journal of Educational Research*, 69 (March/April 1976).

Another objection to token economies is that behavior management techniques tend to dampen student initiative and creativity. Students learn to *react* to the behavioral constraints established by the teacher, rather than creatively developing their own economic system. Consequently, decision-making opportunities are reduced and learning is stifled.[9]

Despite these objections, the classroom management emphasis of the token economy remains very attractive. Most teachers incorporate some element of classroom management into their mini-economies, and most seem satisfied with the results. As one teacher put it, "I don't use classroom dollars to *control* behavior, but rather to help students follow classroom rules and be more careful with their schoolwork."

An Important Caveat

There is an important caveat to mentioned at this point. ***Merely participating in mini-economy activities will not ensure that students learn basic economic concepts***. The mini-economy activities must be considered as *opportunities* to teach economics.

Consider the simple example of a class store. A skillful teacher can use the store to teach concepts such as scarcity, opportunity cost, consumer decision-making, price as an allocation mechanism, and supply and demand. Unfortunately, this does not always happen, and excellent learning opportunities are lost.

There are two basic reasons why economics learning may not occur:

Reason 1:	Teachers lack an adequate understanding of basic economic concepts.
Reason 2:	Teachers lack knowledge of how to use mini-economy activities to teach economic concepts.

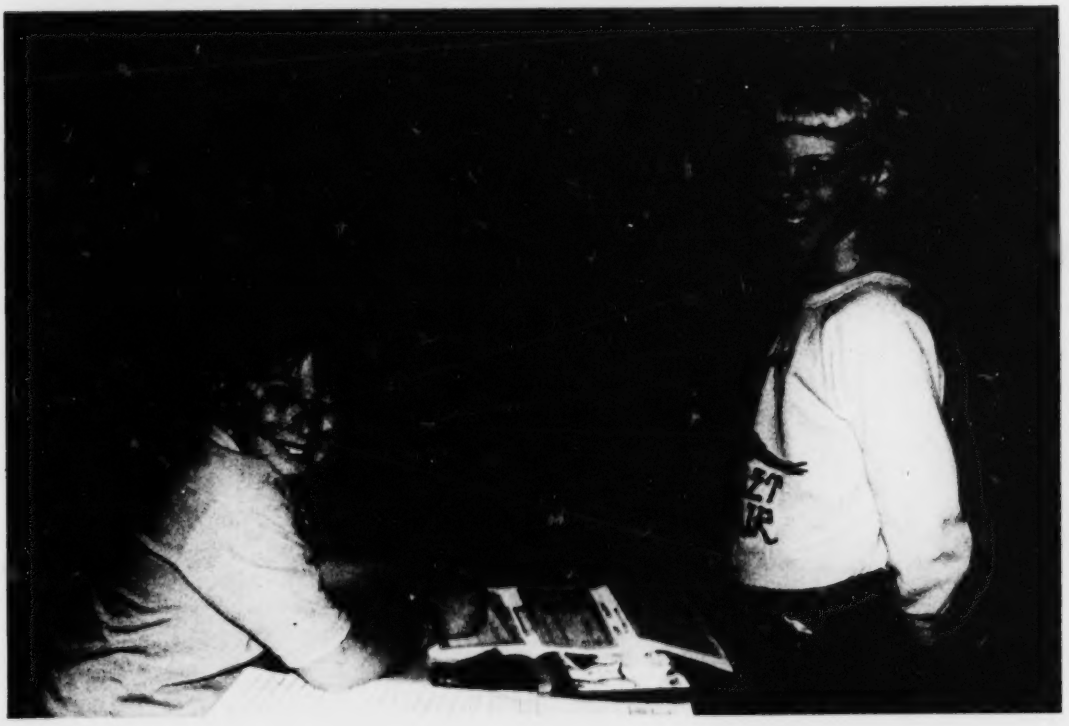
Reason 1 can be explained primarily by the limited amount of economics training provided in teacher education. A study of economic literacy in Indiana by Michael Watts of Purdue University in 1984 revealed that Indiana teachers, while trained as well as teachers in other states where similar data was available, had nevertheless received little training in economics. For example, only 53 percent of the elementary teachers in the study had ever taken a course in economics, and only six percent had ever completed a workshop in economics. Moreover, for 74 percent of the teachers who *had* taken a course or workshop, it had been over nine years since the

[9] *Ibid.*, pgs. 376-381.

training had taken place. Watts concluded:

> In general . . . training levels are not as high as some important early studies suggested would be required to implement effective economic education programs at the pre-college level.[10]

Reason 2 is primarily a problem of awareness. Even teachers who know basic economic concepts may not be aware of the many ways to teach the concepts in their mini-economy. Chapter 5 addresses this problem by identifying various economic concepts that can be taught using each mini-economy activity. This important chapter also explains how to use typical classroom situations and other subject areas to reinforce economic concepts.



[10] Watts, "Empirical Evidence on Economic Literacy in Schools," p. 202.

Figure 1-3

Three Important Things to Remember About Operating a Mini-Economy

1. *EXPAND MINI-ECONOMY ACTIVITIES GRADUALLY. DON'T TRY TO DO EVERYTHING AT ONCE.*

2. *GIVE STUDENTS RESPONSIBILITY FOR HANDLING MANY MINI-ECONOMY DETAILS.*

   DON'T DO WHAT YOUR STUDENTS CAN DO.

3. *USE THE MINI-ECONOMY TO TEACH BASIC ECONOMIC CONCEPTS.*

   DON'T USE THE MINI-ECONOMY EXCLUSIVELY FOR CLASSROOM MANAGEMENT.

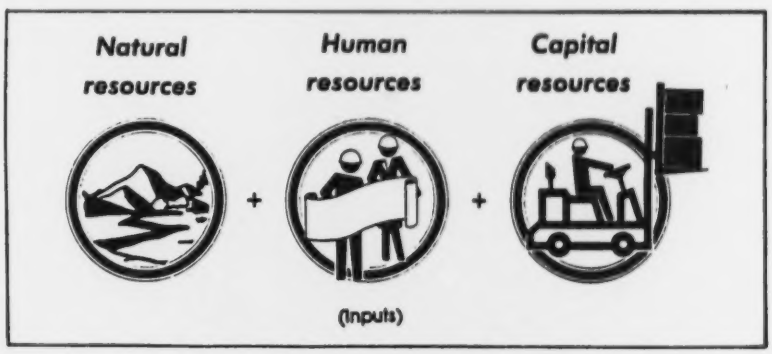
HERBS & PLANTS
COOKING
POTTING SOIL, FLOWERS, ETC.

Chapter 2

What Economics Is About

Scarcity

Every society is endowed with **resources** which are used to **produce** the **goods** and **services** that enable it to survive and prosper. These resources, called **productive resources**, can be classified into three groups: natural resources, human resources, and capital resources. **Natural resources** refer to resources such as coal, water, trees, and land itself. **Raw materials** used in production come from natural resources. **Human resources (labor)** describe the human work effort, both physical and mental, expended in production. **Capital resources** are the man-made physical resources (such as buildings, tool, and equipment) used in production.
The study of **economics** explains how productive resources are used to provide the **goods** and



services that satisfy human wants.[1] Because productive resources are limited, the goods and services that can be produced from them are also **limited**. In contrast, the goods and services wanted by individuals and societies are virtually **unlimited**.

[1] In many elementary school textbooks, a distinction is made between *wants* and *needs*. Because this distinction is not always clear, most economists (to the chagrin of many teachers) lump the terms together under the general category of "wants."

This tension between unlimited wants and the limited productive resources available for satisfying these wants is what economists refer to as **scarcity**. Thus, stereos, hot dogs, education, lawn mowers, TV repair services, and bubble gum are all considered **scarce** because many individuals desire these things, but their availability is limited. Scarce goods and services command a **price** in the marketplace. The price indicates how scarce a good is relative to other goods. A good with a high price is relatively more scarce than a good with a lower price.

It is quite difficult to think of things that are *not* scarce. Some examples might include sand and water at the beach or the air you are breathing at this moment. But even air is scarce to the scuba diver or astronaut; and certainly clean air is scarce for the inhabitants of large cities. It is safe to conclude that in economics, most things in this world are considered scarce. They are not freely available to individuals in unlimited quantities.[2]

Scarcity is sometimes confusing to students because it does not correspond exactly to the common usage of the word. Are hot dogs and bubble gum really *scarce*? They are readily available to most students, who would more likely apply the term to diamonds or gold. A teacher can address this common misunderstanding by offering a free pack of bubble gum to a class. It is a safe bet that more than one student will want it, and the point is proved: in economics, if individuals want more of an item than is *freely* available, then that item is considered scarce, and will command a price in the marketplace.

The Basic Economic Problem

The existence of scarcity creates the **basic economic problem** faced by every society, rich or poor: how to make the best use of limited productive resources to satisfy human wants.

To solve this basic problem every society must answer these three basic questions: 1. **What** goods and services will be produced? 2. **How** will goods and services be produced? 3. **Who** will consume the goods and services?

---

[2] It should be noted that in certain situations, the desire for *particular* goods and services by *particular* individuals *can* be satisfied. For example, at some point a teacher will not want more (and may even want less!) desks in her classroom. However, *in an economic sense,* desks are a scarce good - they are not freely available in unlimited quantities to anyone who wants them.

Three Basic Questions Every Society Must Answer

1. **What Goods and Services Will Be Produced?**
2. **How Will Goods and Services Be Produced?**
3. **Who Will Consume the Goods and Services?**

Economic Systems

Several fundamental types of economic systems exist to answer the three questions of what, how, and for whom to produce: traditional, command, market, and mixed.

☞ **Traditional Economies:** In a **traditional economy**, economic decisions are based on custom and historical precedent. For example, in tribal cultures or in cultures characterized by a caste system, such as India, people in particular social strata or holding certain positions often perform the same type of work as their parents and grandparents, regardless of ability or potential.

☞ **Command (Centralized) Economies:** In a **command economy**, governmental planning groups make the basic economic decisions. They determine such things as which goods and services to produce, their prices, and wage rates. The former Soviet Union and North Korea are examples of command economies.

☞ **Market (Decentralized) Economies**: In a decentralized **market** economy, economic decisions are guided by the changes in prices that occur as individual buyers and sellers interact in the market place. As such, this type of economy is often referred to as a **price system.** Other names for the market system are **free enterprise, capitalism,** and **laissez-faire**. The economies of the United States, Hong Kong, and Japan are often identified as market economies, since prices play a significant role in guiding economic activity.

☞ **Mixed Economies:** There are no pure command or market economies. To some degree, all modern economies exhibit characteristics of both systems and are, therefore, often referred to as **mixed economies**. For example, in the United States the government makes many important economic decisions, even though the price system is still predominant. Even in strict command

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economies, private individuals frequently engage in free market activity, particularly in small towns and villages.

The key point to remember is that every individual and every society must contend with the problem of scarcity. Every society, regardless of its political structure, must develop an economic system to determine how to use its limited productive resources to answer the three basic economic questions of what, how, and for whom to produce.

Opportunity Cost: There's No Such Thing as a Free Lunch!

Because of scarcity, any time a choice is made there are alternatives that are *not* chosen. More precisely, there is always one *next best* alternative that is not chosen. In economics, the value of the next best alternative is called **opportunity cost**.

Both **producers** (those who provide goods and services) and **consumers** (those who use goods and services) incur opportunity costs when making decisions. For example, the business person who uses a building to operate an insurance business cannot use the same building to produce pizzas. The consumer who uses scarce income to purchase a new carpet will have to forgo saving the money or purchasing something else. *Because there are always alternative uses for limited resources, every economic decision has an opportunity cost.*

A major goal of economics instruction is teaching students to recognize and evaluate opportunity costs when making decisions. As consumers, students should realize that the "cost" of buying an item is not just its price; rather, it is the most valued item that now *cannot* be bought. For producers, the opportunity cost is the next most valuable good or service that is *not* produced as a result of the decision to produce something else.

The concept of opportunity cost also relates to the use of **time.** Since time is scarce, the time spent doing one activity cannot be spent doing another. Thus, the real "cost" of watching television is not the time itself, but the most valuable *other* activity that could be done during that time.

The inescapable conclusion to this discussion is that there is, as the economists tell us, "no such thing as a free lunch." All resources are limited and have alternative uses. Every economic choice has an opportunity cost.

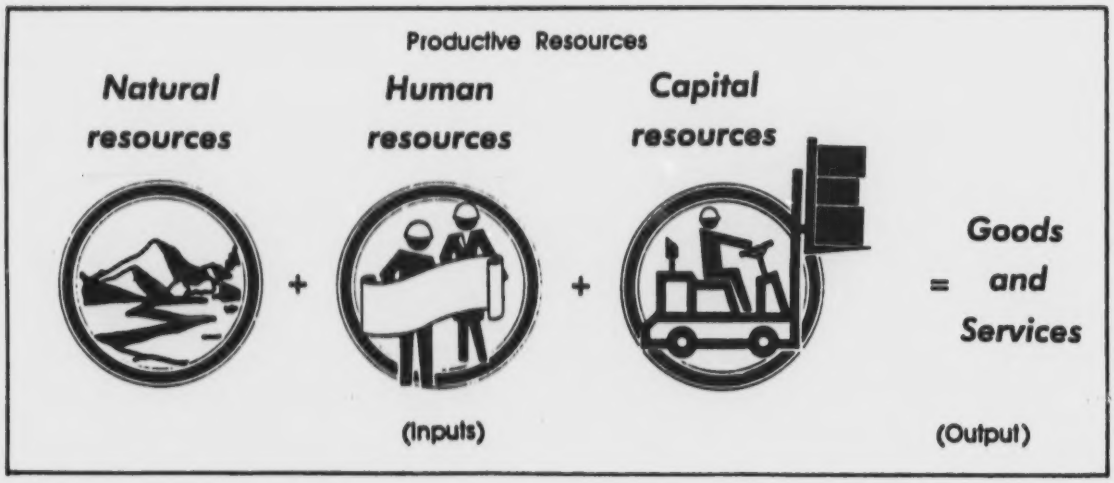
Productivity: The Key to Minimizing the Effects of Scarcity

☞ **Production and Productivity:** Economic activity is directed toward a distinct goal: minimizing the pervasive effects of scarcity. In doing so, individuals and societies almost instinctively pursue economic activities which enable them to satisfy the most important of their wants using the fewest resources possible. This has never been an easy task, and has been fraught with much toil and hardship. The progress that has been made in minimizing the effects of scarcity has been largely due to a more efficient use of the productive resources in the production process.

Production is the process in which productive resources are combined to create goods and services. It can be a relatively simple process, like John's bookmark business mentioned at the beginning of Chapter 1, or it can be very complex, such as the production of an automobile. The basic elements of the production process are diagramed in Figure 2-1.

Figure 2-1

Production



Economists refer to finished goods and services as **output**. Productive resources are the **inputs**. The important concept, **productivity**, measures the amount of output produced relative to the inputs used. It is expressed as a ratio.

$$\text{Productivity} = \frac{\text{Output}}{\text{Input}}$$

Since labor (human resources) is a relatively easy input to measure and since it relates directly to wages and living standards, the term productivity usually refers to **labor productivity** and is measured in terms of output per labor hour worked.

$$\text{Productivity} = \frac{\text{Output}}{\text{Labor Hour}}$$

Thus, if John and his workers produce eight bookmarks in one hour, then eight/one or eight is the measure of their productivity. If they could produce 16 identical bookmarks in that same hour, this would be an **increase in productivity**.[3]

In the long run, minimizing the effects of scarcity depends on increasing productivity. Societies that use their productive resources efficiently typically have higher standards of living. Health standards improve, and life expectancy increases. The basic economic problem of scarcity cannot be eliminated, but its effects can be reduced.

☞ **How to Increase Productivity.** Economists have identified several ways to increase productivity and reduce the effects of scarcity.

- ***Adequate Amounts of Capital:*** Workers are more productive when they use tools, machines, and equipment. An adequate stock of capital for workers is necessary for high levels of productivity.

- ***Improvements in Technology:*** A farmer using a tractor can produce more than a farmer using a hoe. A technologically improved stock of capital has been the greatest factor in increasing productivity.

- ***Improvements in the Quality of Labor:*** Labor that is better trained and educated is more productive than unskilled labor. The increase in skills resulting from education and training is referred to as **human capital**.

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[3] It would also be an increase in productivity to produce the *same* output using *less* inputs. Producing eight bookmarks in ½ hour instead of one hour would also increase productivity from eight to sixteen.

- ***Increased Specialization and Exchange:*** Because individuals are endowed with different skills and interests and because the time and resources necessary to learn new skills are scarce, there is a strong tendency toward **specialization** in the production of goods and services. This leads invariably to an increase in productivity. A cobbler specializes in making shoes, while a farmer specializes in growing food. They then **exchange (trade)** with each other to get the desired goods. By concentrating their talents and efforts in one area, they can produce more shoes and food than if each tried to produce both products.

  Specialization also characterizes trade among nations. When nations focus production in areas where they have an efficiency advantage (**comparative advantage**) and then trade to obtain other desired goods and services, the result is more overall production and higher standards of living.

  Specialization also exists in specific production processes when workers perform different tasks. For example, in a law office, secretaries manage the office and do clerical work, while lawyers provide legal expertise. This specialization increases the total amount of legal services produced.

The main point to remember is that at whatever level specialization occurs, the result is an increase in productivity.

Interdependence: The Result of Specialization

A major consequence of increased productivity due to specialization and exchange is **interdependence**. The more individuals and nations specialize and trade, the more dependent they become on each other to supply their basic wants. Few of us grow all our own food; we rely on farmers. Farmers, in turn, rely on other producers to provide clothing and farm machinery. The complex web of interdependence that develops from trade among individuals and nations creates a strong incentive for social cooperation and peaceful coexistence.

Specialization in specific production processes (**division of labor**) also results in a high degree of interdependence. For example, assembly line workers often perform highly specialized tasks, making them very dependent on their co-workers. Even in modern manufacturing plants, where individual workers often work in production teams, there is still a significant degree of specialization and interdependence.

Money: Encouraging Specialization by Reducing the Costs of Trade

Money is an indispensable part of all modern economic systems. **Money** can be broadly defined as a **medium of exchange**. Since money is convenient to use and readily acceptable, individuals use it as payment when exchanging goods and services. Using money is much more efficient than **barter** (exchange without money) since money greatly reduces the **transaction costs** associated with simple barter. For example, in a barter economy an apple producer would have to devote valuable time and resources finding other producers who are selling the goods and services that he desires *and* who are willing to trade for apples. Using money alleviates this problem. By greatly reducing the costs of trade, the use of money increases the size of the market for goods and services. This promotes more specialization, which, in turn, leads to greater productivity.

For money to be an effective medium of exchange, it must first be relatively **scarce**. Items that can be easily found or duplicated will not work. Ideally, money should also be durable, portable, and divisible. While various items such as shells, tobacco, and furs have been used as money, throughout history gold and silver have been used the most. Today, these precious metals are no longer part of the money supply of the United States. Instead, the basic money supply, know as **M1**, consists primarily of **currency** (paper and non-precious coins) and **checking accounts.**

Characteristics of Money

For something to be an effective medium of exchange it should be:

1. **Scarce**
2. **Durable**
3. **Portable**
4. **Divisible**

The Price System: How the Market Directs Economic Activity

Because of scarcity, all societies must determine how to use their limited productive resources to answer the basic economic questions of what, how, and for whom to produce. To one degree or another, societies rely on the **price system** to accomplish this task. Societies which rely primarily on the price system are often called **market economies**.

☞ **Prices as a Guide:** In a market economy, changing prices in the marketplace guide economic activity, simultaneously coordinating the diverse interests of millions of individuals in their roles as producers and consumers. For example, suppose that a new craze for tennis results in consumers purchasing more tennis rackets. If this is the only change in the market, this increase in demand for tennis rackets will cause their price to rise, resulting in more profits for producers of tennis rackets. The rise in profits will encourage existing producers to make and sell more rackets and will also encourage new racket producers to enter the market. Eventually, the supply of tennis rackets will increase and the price will fall again.

The important point to notice in this example is how prices coordinated the independent desires of consumers and producers. The rise in tennis racket prices communicated to producers that consumers desired more tennis rackets, provided the financial incentive to producers (in the form of increased profits) to meet the desire in the most efficient way possible, and determined who would get the rackets (those who were willing and able to pay for them).

Different Names for the Price System

Price System **Market Economy**

Capitalism **Laissez-faire**

Free Enterprise

What is striking about the price system's ability to answer these "what, how, and for whom" questions is the efficiency with which it is accomplished. This efficiency occurs because those who want to buy and sell a product are free to do so in the way that benefits them the most, in competition with others. It is not necessary for government officials to estimate a society's future

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desire for particular goods and services and then to organize their production and distribution. In the price system, this complicated task happens more or less automatically, without government involvement.

Adam Smith, the Scottish philosopher and author of the *Wealth of Nations*, in 1776 used the famous metaphor of the invisible hand to describe this amazing process.

> Every individual endeavors to employ his capital so that its product may be of greatest value. He generally neither intends to promote the public interest, nor knows how much he is promoting it. He intends only his own security, only his own gain. And he is in this led by an invisible hand to promote an end which has no part of this intention. By pursuing his own interest, he frequently promotes that of society more effectively than when he really intends to promote it.

☞ **Price Controls:** When government intervenes in a market economy to set prices, the results are predictable. If the price of a good (or service) is set *above* the true market price determined by supply and demand, there will be a **surplus**. This is because at higher prices the quantity of goods supplied by producers will increase, while the quantity of goods demanded by consumers will decrease. The surplus of farm and dairy products in the United States is a good example.

The opposite happens if a government sets the prices of goods or services *below* true market prices. In this case, the quantity of goods supplied by producers will decrease, while the quantity demanded by consumers will increase. The result is a **shortage**, characterized by long lines in stores. Setting prices below market levels helped create the gasoline shortages of the 1970s in the United States.

The market price of a good or service is often referred to as the **market clearing price**, or **equilibrium price**. This is the price that equalizes the amount producers want to sell and consumers want to buy. It is the price that "clears" the market of goods and services.

The Circular Flow Model of a Market Economy

The **Circular Flow Model** (Figure 2-2) illustrates how a pure market economy works. Households and businesses are the major actors in this simplified model. They interact with each other in three major markets, represented by the three circles. The circular arrows going in opposite directions illustrate two major flows. The inner arrow represents the flow of either goods and services or productive resources. The outer arrow represents the flow of money.

The **products market** (top circle) is the market for finished goods and services. As in all free markets, prices are determined by the interaction of supply and demand. Businesses supply

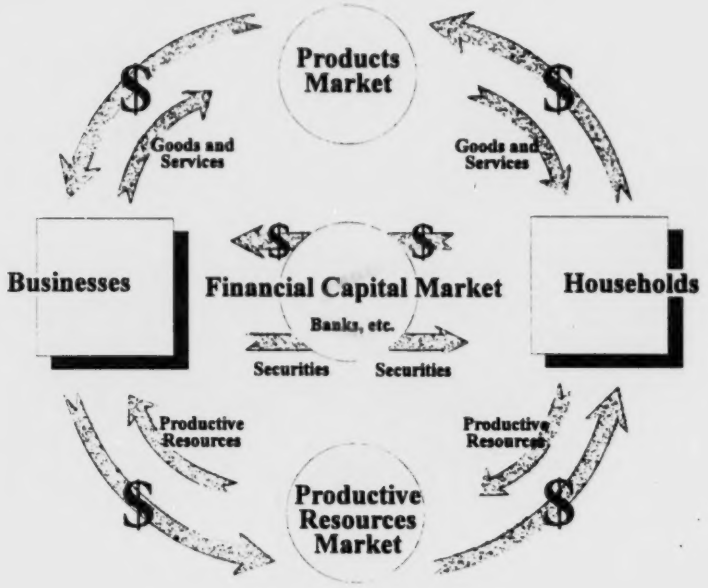
goods and services (inner arrow) and households demand these goods and services using money income (outer arrow).

In the **productive resources market** (bottom circle), households supply the productive resources, especially labor (inner arrow), and businesses demand the productive resources (outer money arrow) which they use to produce goods and services. The resulting interaction of supply and demand determines the price of the productive resources. In the case of labor, this price is called a **wage** or **salary.**

Households may not spend all of their income. Income that is **saved** flows into the **financial capital market** (middle circle) where it is borrowed by businesses to finance more production.[4] Households thus **supply** loanable funds (savings) and businesses **demand** them. The interaction of savers and borrowers in this market for loanable funds results in a special price known as the **interest rate**. Banks, insurance companies, brokerage houses, and other financial institutions help households channel their savings to businesses.

Figure 2-2:

Circular Flow Model of a Market Economy



[4] This simple circular flow model shows businesses borrowing savings only from households. In reality, the situation is more complex, since businesses as well as households provide savings to the market. Also, consumers and governments compete with businesses to borrow the available savings.

The Role of Government

The circular flow model is a simple illustration of a market economy governed entirely by prices. However, no society relies exclusively on markets to deal with the basic economic problem of scarcity. In command economies the government takes a leading role; while in market economies, the role of government is more limited.

☞ **Different Roles of Government:** In the United States economy, government performs the following roles:

- ***Provides a Legal Framework:*** Without an effective legal framework the price system cannot operate effectively. Government provides a legal framework when it enforces private contracts, defines private property rights, establishes uniform weights and measures, and establishes and enforces laws and rules governing marketplace activity.

- ***Insures Competition:*** The market (price) system operates effectively when there are many buyers and sellers competing in the marketplace. The government uses its powers to insure that one seller (**monopoly**) or a few sellers (**oligopoly**) do not control a specific area of the economy to the detriment of consumers. The government also establishes public service commissions to regulate **natural monopolies** such as utility companies.

- ***Provides Public Goods*:** Certain goods and services, known as **public goods**, will be provided in less than the desired amount if production is left to the market system alone. The government, therefore, provides these goods and services. Examples include national defense, roads, flood control projects, and lighthouses.

- ***Controls Externalities*:** Certain market transactions result in **externalities**, or **spillovers**, that cause good or bad effects which the parties in the transactions do not bear. Pollution is an example of a **negative spillover**. Since polluters can pass on the effects (costs) of pollution to others, the government attempts to correct the situation by prohibiting or regulating certain production activities. Education is commonly cited as a **positive spillover**. Since individuals in society, other than the direct recipients and providers of the education, also benefit, the government uses taxes to provide public education.

- ***Redistributes Income*:** The government uses tax revenues to provide a social "safety net" for individuals with little or no income.

✏ ***Stabilizes the Economy:*** Our economy is characterized by **business cycles** that create hardships for many people.[5] In "downturns" (**recessions**) there is little or no economic growth, often resulting in significant unemployment. In "upturns" there is frequently more inflation.[6] The government uses **fiscal policy** (taxing and spending decisions) and the Federal Reserve Banking System uses **monetary policy** (money supply decisions) to help keep the economy as stable as possible. When an economy experiences inflation and unemployment simultaneously this is known as **stagflation**.

The Role of Government in the United States Economy

1. **Provides a Legal Framework**
2. **Insures Competition**
3. **Provides Public Goods**
4. **Controls Externalities (Spillovers)**
5. **Redistributes Income**
6. **Stabilizes the Economy**

☞ **The Growing Role of Government:** The role of government in our economy is growing. In 1929, national, state, and local government expenditures accounted for about 10 percent of our national output, or **gross domestic product (GDP)**. By 1994 these expenditures (including **transfer payments**, such as social security and welfare payments) were approximately 34 percent of GDP. There is much controversy about this growing role of government, since the services and transfer payments provided by government must ultimately be paid for by **taxes** taken from individuals.

Not everyone agrees that government should assume all of the roles identified above. Some believe that government ultimately does more harm than good when it redistributes income and when it attempts to stabilize the economy. In general, they contend that the growth of government has resulted in a great loss of individual liberty.

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[5] Many economists believe that pronounced business cycles are a natural and inevitable characteristic of a market economy. Others believe that business cycles are instead the result of *non-market* factors, especially government interference in the financial capital markets and the structure of the banking system.

[6] Economists generally define inflation as a persistent increase in the prices of most or all goods and services over a period of time. Over long periods inflation is caused by increases in the supply of money that are greater than increases in the output of goods and services.

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Making the Market Economy Work: The Role of the Entrepreneur

In a command economy, government determines and directs economic activity. However, in a market (capitalist) economy, economic decisions are made primarily by millions of independent consumers and businesses responding to prices. Businesses attempt to satisfy the wants of consumers in order to earn **profits**. Those who successfully satisfy consumer wants will prosper; those who do not will suffer losses and fail.

The key individuals in a market economy who initiate the production of goods and services to satisfy the wants of consumers are called **entrepreneurs**. The entrepreneur combines the **productive resources** (natural, human, and capital) to produce goods and services he expects to sell for a price high enough to cover production costs.[7] The dollar amount remaining after all production costs have been subtracted is called **profit**.

Since the future is not known, it is not certain that entrepreneurs will earn profits. Many business ventures suffer losses and eventually fail.[8] Entrepreneurs may overestimate consumer demand for a product, or prices of productive resources may rise unexpectedly. There could be labor strikes, unexpected and costly government regulations, or increased international competition. The uncertainty of the future guarantees that every business venture will entail some degree of **risk**. Entrepreneurs will produce goods and services only if the expected profits are great enough to warrant the risk incurred in production.

In the final analysis, the market (price) system's ability to provide goods and services depends on the effort and ingenuity of individual entrepreneurs. It is they, responding to future, and therefore uncertain, consumer demand who ultimately determine what to produce, how to produce, and for whom to produce. Individual entrepreneurs are the driving force in the market economy's answer to the problem of scarcity.

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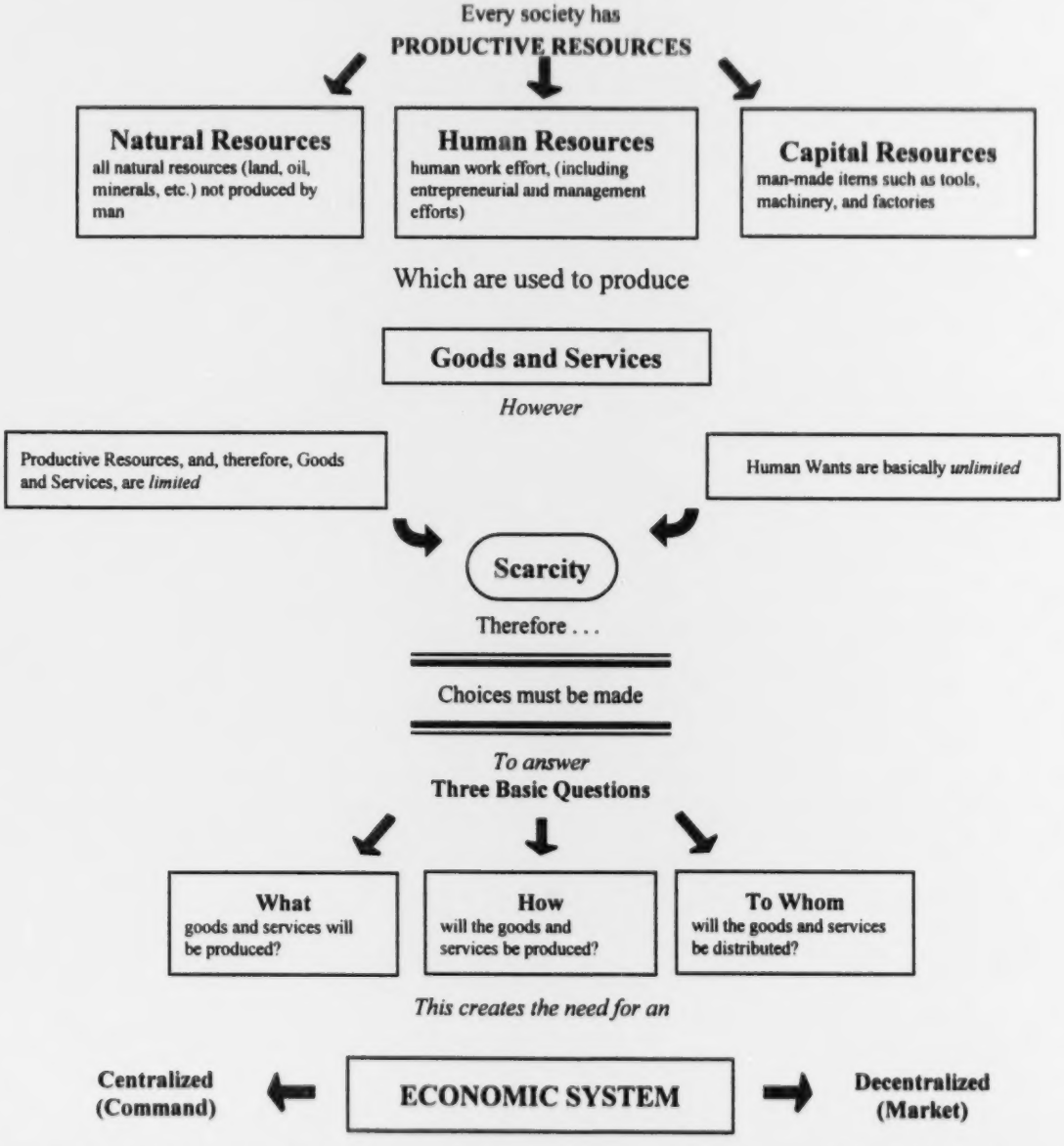
[7] Many economists classify entrepreneurship as the fourth basic productive resource.

[8] Over half of all new companies fail in their first two years of operation.

Figure 2-3

What Economics is About

Economics studies how individuals and societies use their scarce productive resources to obtain goods and services.


Every society has
PRODUCTIVE RESOURCES
Natural Resources
all natural resources (land, oil, minerals, etc.) not produced by man
Human Resources
human work effort, (including entrepreneurial and management efforts)
Capital Resources
man-made items such as tools, machinery, and factories
Which are used to produce
Goods and Services
However
Productive Resources, and, therefore, Goods and Services, are limited
Human Wants are basically unlimited
Scarcity
Therefore . . .
Choices must be made
To answer
Three Basic Questions
What
goods and services will be produced?
How
will the goods and services be produced?
To Whom
will the goods and services be distributed?
This creates the need for an
Centralized (Command)
ECONOMIC SYSTEM
Decentralized (Market)

The Basic Economic Problem: The Basic Economic Problem for any society is how to make the best use of its various and limited productive resources. Scarcity, with the resulting need to choose among competing alternatives, is the basic economic problem.

OPEN
CARDS
Baseball
Reds
Football
Colts
Basketball
Pacers
Misc.

Chapter 3

How to Start a Mini-Economy

Five Basic Steps

Teachers are often enthusiastic about starting mini-economies in their own classrooms but sometimes are overwhelmed by the seemingly complex nature of the task. The guidelines presented in this chapter will help any teacher who wants to take that first step in implementing this unique form of instruction.

Although the exact sequence may vary, a program can begin with these five steps:

Five Steps for Starting a Mini-Economy

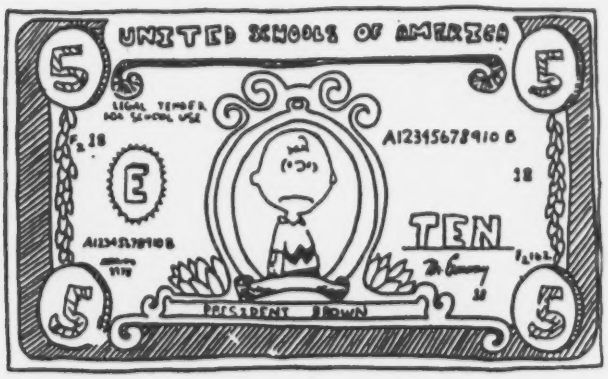
Step 1: Design the Classroom Money
Step 2: Decide How Students Will Earn the Money
Step 3: Determine What Items and Privileges the Money Will Buy
Step 4: Determine How to Distribute Items and Privileges
Step 5: Do It!

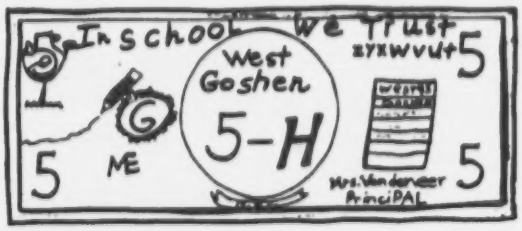
Step 1: Design the Classroom Money

The production and consumption of goods and services in modern economic systems is helped immeasurably by the use of money. The classroom economy will be no different; some form of classroom currency will be necessary. It can be designed by the teacher or by a more "artistic" person, perhaps the school art teacher. Many teachers let their students design the currency and then vote on the design they like best. You can also copy the currency provided in Appendix A of this publication.

It is not absolutely necessary to use "dollars." Students can create other names for their currency. One fifth grade student designed a currency using sheep as a theme, with different money denominations using ewes, lambs, wools, and rams. Some teachers use metal fender washers to simulate gold and silver coins. These can be found at local hardware stores. A request to the president of a company producing the washers will usually result in a reasonable number being donated to the class. Using these "real" coins is always a favorite with the children. And using them with paper currency (gold and silver certificates) illustrates the original link between paper money and the precious metals.

Primary teachers especially like to use "real money" coins in their mini-economies since it lets their students apply many arithmetic skills found in their curriculum. Teachers simply use the coins provided in the back of many math textbooks. It works great!





Step 2: Decide How Your Students Will Earn Money

There are three basic ways for your students to earn money in the mini-economy: ***classroom jobs***, ***classroom businesses***, and payment for ***desired behavior***.

☞ **Classroom Jobs:** Classroom jobs are the most common and realistic way for students to earn money. There are many different types of jobs, some of which are listed below. It is best if every student has at least one job. Some students will want more than one. Post job descriptions listing the necessary qualifications and let students apply. (Only neat applications will be accepted, of course!) Some teachers require letters of reference and conduct interviews. To keep things manageable, ask the principal, students in the high school economics class, or parents to conduct some of the interviews.

You will have to decide if you want to vary the pay for different jobs. Some teachers do, since this is more realistic and illustrates that some jobs require more effort and skill than others. Be sure to post the salaries and skill requirements on job listings. A job description form is provided in Appendix A, or you can create your own.

Classroom jobs provide an excellent opportunity for you to teach some important economic concepts. Explain how job specialization increases the productivity and income of a community, but results in more interdependence. Point out that wages are a reflection of a person's productivity, and that one can increase productivity by getting better education and training.

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✏ *Types of Classroom Jobs*

* Accountant
* Take-home Announcements Monitor - ensures that announcements get sent home
* Class Messenger
* Custodian - cleans bookshelves, board and erasers, etc.
* Attendance Officer - takes daily attendance
* Police Officer
* Bank Teller
* Auctioneer
* Playground Equipment Supervisor - keeps track of all playground equipment
* Real Estate Title Recorder
* Mail Carrier - delivers "mail" to students in class and to other classrooms
* Librarian - keeps books shelved and orderly
* Horticulture Specialist - takes care of classroom plants
* Pet Caretaker - takes care of classroom pets
* Aquarium Keeper - feeds fish and cleans aquarium
* Tax Collector
* Restroom Monitor
* Store Keeper - runs class store
* Clean Desk Inspector
* Paper Assistant - passes out or files all graded work
* Audio Visual Technician - sets up and operates AV equipment
* Job Monitor - keeps track of who has completed jobs
* Homework Monitor - keeps track of assignments of absent students
* Insurance Agent
* Courtesy Director - greets visitors
* News Director - reports on current events
* Meteorologist - gives daily reports and predictions, keeps running chart of weather data
* English (ESL) Tutor
* Computer Technician - operates computer, keeps software, monitors computer schedules
* Coat/Book Bag Monitor - keeps coat area clean and orderly
* Pencil Sharpener Attendant - empties pencil sharpener daily
* "Specials" Attendant - writes on the board each day's special classes
* Eraser Cleaner
* Payroll Clerk - helps distribute pay
* Bill Collector - helps collect bills
* Social Director - plans and organizes class celebrations
* Teaching Assistant
* Book Critic - reads and reports on books each month
* Conservationist - monitors recycling bin
* Dietician - reads daily lunch menu, collects lunch money, assists with snacks
* Travel Agent - helps organize field trips, runs "Will Return" board, conducts school tours
* Game Keeper - takes care of game closet

☞ **Classroom Businesses:** Classroom businesses are perhaps the most rewarding and beneficial aspect of a mini-economy. Students first must assess classroom demand for a particular good or service. Then they must gather the appropriate productive resources, and finally produce, market, and sell the good or service. This challenging task teaches students many economic concepts and skills. It also means less work for the teacher, since the *students* are now producing goods and services for their classmates to purchase. Some samples are listed below. (For a more detailed description of classroom businesses, see Chapter 4.)

✏ ***Goods Produced by Classroom Businesses***

* Paperweights
* Plants
* Art paintings or drawings
* Flower seeds
* Christmas, valentine, or birthday cards
* Class scrapbook or photo album
* Craft items (potholders, corsages, puppets, etc.)
* Decorated pencils
* Paper wallets
* Paper airplanes
* Class or school newspaper
* Popcorn or candy
* Bank checks
* Bookmarks
* Baseball/football/basketball cards
* Wrapping paper

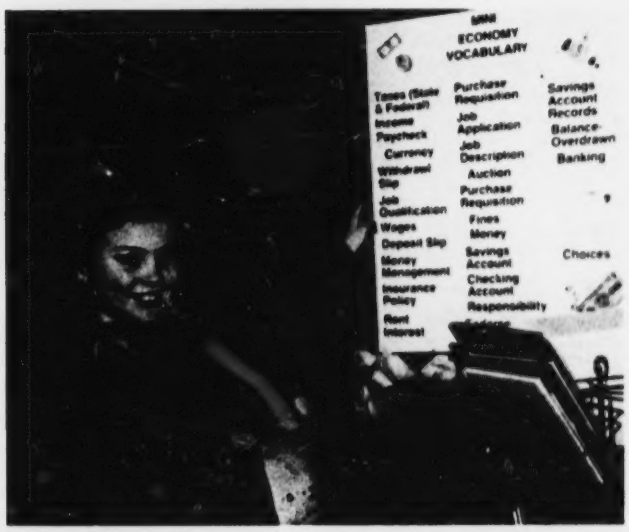
✏ ***Services Produced by Classroom Businesses***

* Face painting
* Homework reminder
* Tutoring
* Postal delivery
* Photography
* Insurance (auto, medical, absence, etc.)
* Accounting agency
* Theater or "night club"
* Rent-a-Kid (for odd jobs, tutoring, etc.)
* Music, acting, or dancing lessons
* Manicures
* Desk cleaning
* Banks
* Advertising agency
* Singing telegrams
* Pencil sharpening
* Drawing lessons
* Paperback book swap

☞ **Payment for Desired Behavior**: Some teachers use their mini-economies to help with classroom management. Teachers pay students for various types of behavior, such as neat work, completed assignments, clean desks, or quiet hallway behavior. Other teachers prefer less teacher control and direction. Their students earn income only by doing classroom jobs or by creating classroom business. Many teachers combine approaches. Some of the many classroom management possibilities are listed below.

✏ ***Classroom Management Ideas***

* Clean desk, floor, or locker
* All work done on time
* Quiet, straight lines in the hall
* A's on tests and quizzes
* Neat writing
* Reading books ($ per page; get a written promise and ask a few questions about the plot)
* Improvement in work
* Winning class instructional games
* Extra credit work
* Studying quietly



☞ ***Remember!*** *Don't overemphasize the classroom management aspect of your mini-economy. Use your mini-economy as a curriculum tool to integrate your curriculum and to teach basic principles of economics and personal finance.*

Also, encourage students to devise other ways to earn income. This encourages creativity and keeps interest levels high. Much intuitive learning takes place as students haggle, make decisions, and live with the opportunity costs of these decisions in their daily experiences. Many of the students who have problems in academic areas will demonstrate good business savvy.

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While they might not earn much income by excelling in their studies or completing assignments, they will find other ways to earn money if given the opportunity.

Although some teachers pay their students large amounts of money for specific classroom jobs or certain behavior, it is probably wise to keep payments to a more realistic level. Parents might object if their daughter earns $1,000 a day for watering the plants or keeping her desk clean! They could argue that this does not accurately reflect the effort it takes to earn $1,000.

Step 3: Determine What Items and Privileges the Money Will Buy

Money has value because it can be used to purchase scarce goods and services. *Likewise, in the classroom mini-economy, students must be able to use their play money to purchase goods and services that they truly value.* If this is not the case, the students will lose interest in earning the play money and the mini-economy will not function effectively.

☞ **What Do Students Want to Buy?** The things that students value in a typical classroom can be grouped into two basic categories - ***tangible items*** and ***class privileges***. Some examples are listed below. These lists are not at all exhaustive, and teachers will discover many other items and privileges that their students will want to buy.

✏ ***Tangible Items***

* Lost and found items
* Stamps and coins
* Candy
* Plants
* Used clothing, books, and athletic equipment
* Used CDS
* Posters
* Plastic jewelry
* Baseball and football cards
* Pens, pencils, erasers
* Other school supplies
* Small cars
* Small desk calendars
* Pennants
* Free books from student book clubs
* Combs

✏ ***Class Privileges***

* Line leader
* Class messenger
* Library passes
* Extra recess period
* Cleaning the chalkboards
* Choosing recess activities
* Time on the computer
* Using the class ball at recess
* A cola in the class after recess
* Lunch at a restaurant with the teacher
* Grading homework assignments
* Supper at the teacher's home
* Making bulletin boards
* Being kickball or softball captain

* Writing on the chalkboards
* Helping the school secretary
* Buy back a "no name" paper
* Moving desk within classroom
* Taking attendance

Although some of the class privileges (especially lunch with the teacher) will remain popular throughout the school year, students often like the tangible items best. As the school year progresses, several of the more mundane "privileges" (passing out papers, cleaning the boards, etc.) may become less attractive to the students. If this happens, make these privileges classroom jobs, and pay the students for doing them. Enough other privileges and tangible items of value will still remain.

☞ **How Do I Collect Items to Sell?** Since it is true that one child's junk is another child's treasure, encourage students to bring unwanted items from home. One teacher operated a "swap shop" before school. He always traded *one* of his items for *two* of the items brought by the students, ensuring that he always had an adequate inventory of items to sell in his auction! (Why not let a paid student operate the swap shop?) Items also can be acquired inexpensively at summer garage sales or flea markets. Teachers in your school building are another good source; their storage closets are full of interesting things!

Some mini-economy teachers solicit local businesses for items, which can be very successful. You can collect some rather impressive and valuable items. Teachers who have a large end-of-the-year store or auction often use this method. In summary, it is neither difficult nor expensive to gather quite a collection of items that your students value. They will buy just about anything!

Step 4: Determine How To Distribute Items and Privileges

There are two basic ways to distribute items and class privileges: ***class auctions*** and ***class stores***. Neither one is necessarily better than the other, and some teachers use both in their mini-economies.

☞ **Class Auctions:** Auctions are effective and very motivating. As in a regular auction, students bid to determine who gets the offered items and privileges. An interesting possibility is to invite an auctioneer to conduct some of the class auctions. This generates much excitement and adds an element of realism to the auction. The auctioneer also can explain some of the intricacies of a real auction. Teachers have found this approach very successful.

Since an auction can sometimes become rather hectic, these tips should be helpful:

- ***Display the Items/Privileges Before the Auction Takes Place.*** This allows the students to examine carefully what will be offered for sale and lets them plan accordingly.

- ***Let Students Help.*** During an auction, it is necessary to record the prices of items sold and to collect payments. Student helpers (possibly paid) should assume these responsibilities, freeing the teacher to concentrate on the actual bidding and to keep reasonable order. A simple auction slip (Appendix A) helps avoid confusion by providing a record of what actually took place during the auction.

- ***Establish Auction Rules.*** Some specific rules are necessary in an auction. These will vary from teacher to teacher. Some teachers require students to state their bids out loud. Although it can become rather noisy, this forces students to commit themselves to a bid, instead of indecisively raising and then lowering their hands at the last minute. Require students to bid in dollar increments which are large enough to prevent time-consuming bidding wars.

- ***Don't Hold Auctions Too Frequently.*** The frequency of the auctions is up to the teacher. Bi-weekly or monthly auctions are usually satisfactory, although some teachers prefer only two or three auctions during the entire semester. Younger students will need to have auctions more frequently.

Some teachers enjoy using "silent auctions." Students meander through the auction room, examining the various items up for sale. Students "bid" on certain items by indicating on a fixed piece of paper next to each item how much they are willing to pay. Students can outbid their classmates by recording a *higher* price on the paper. After a specified time, the auction is over. Those students who recorded the highest prices must purchase the items.

☞ **Class Stores**: This is another effective way to distribute items and privileges. Students can buy necessities, such as pencils, pens, and paper, or many other items and

privileges. Some teachers operate a daily store, which is usually open before school or at the end of the day. Others have special "store times" for students to shop.

✏ ***Setting Prices:*** Unlike the class auction, it will be necessary to set prices for store items. Students should be involved in this. They can make suggestions or even make the pricing decisions themselves. This provides an excellent opportunity to discuss supply, demand, and prices. Students enjoy the challenge of finding the "right" price. (If the price is too high, students will discover there is a surplus of items; if the price is too low, there will be a shortage.) It is better to err on the high side when setting initial prices. If prices are too low, students will purchase all of the store items much too quickly! You can always lower prices later.

To help determine the "right price," your students may wish to conduct a market survey. Students can ask potential customers how many items they would be willing to purchase at various prices. Market survey forms can be found in the Indiana Department of Education's publication, *Economic and Entrepreneurship: Operating a Classroom Business.*

✏ ***Student Operated Stores:*** Small groups of students may want to operate their own stores, selling goods or services that they have produced in their own classroom businesses. This is a great idea since it encourages student creativity, provides many opportunities for teaching economics, and takes the pressure off the teacher to collect items for the store. Various possibilities for these types of classroom businesses are listed under Step 2 above and are discussed in more detail in Chapter 4.

Step 5: Do It!

The four steps described above provide enough information to start a mini-economy. The last step is simple - do it! However, take this one important word of advice: **don't do too much too quickly.** It simply isn't necessary. Start by announcing to the class that you're going to help them become better citizens and workers by paying them for various behaviors and/or jobs. Discuss or list various possibilities and how much each is worth. (Display a large wad of money during this discussion!) The room will soon be buzzing with excitement, and before long, someone will ask the next logical question, "But what can we buy with our money?" Now is the time to explain the class auction or store. Display some of items that will be sold, and explain the various class privileges that will be offered.

At this point, the students will be highly motivated and will want to start earning money immediately. Lay out any other desired guidelines and begin.

Start simply and then expand gradually at a pace that is manageable for you and your students. A class bank, with checking and/or savings accounts and bank employees is a natural second step. Insurance, real estate, a postal system, and other businesses may follow. These aspects of an expanded mini-economy are explained in more detail in the next chapter.

Other Considerations

☞ **Working Together:** Encourage another teacher in the building to start a mini-economy. This allows the sharing of creative ideas and the discussion of successes and failures. Also, working together allows teachers to share worksheets and forms that are common to both mini-economies.

It is helpful to keep in touch with teachers in other school corporations who are doing mini-economies. One interesting way of doing this is to encourage the students to be pen pals. They will enjoy sharing ideas and mini-economy experiences with each other, while sharpening their letter writing skills.

☞ **Learning More About Economics:** For various reasons, introductory economics was a subject many teachers avoided during college. Naturally, they tend to feel inadequate about their economics knowledge. Even so, a weak or non-existent economics background need not hinder you from initiating a mini-economy, since the basic economics concepts identified in the *Indiana Curriculum Proficiency Guide* (See Appendix C) are not especially difficult. Some simple independent study should begin with Chapter Two of this publication - "What Economics is About." Then examine Chapter 4, which explains how to integrate economics instruction into your mini-economy.

You also may wish to examine *A Framework for Teaching Basic Economic Concepts,* published

by the National Council on Economic Education. This booklet also contains K-12 scope and sequence guidelines and is available from the Indiana Council for Economic Education by calling 317- 494-8545.

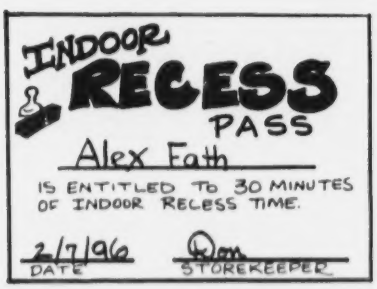
☞ **Summer Economic Education Workshops:** Another excellent way to increase your confidence in economics is to attend a summer workshop for teachers at a local university. The workshops will give you the opportunity to learn basic economics and discover creative ways to teach economics to your students. You will also have the opportunity to meet colleagues who are interested in economics as part of their social studies curriculum. In Indiana, these workshops provide two or three hours of academic credit, and usually the tuition costs are covered by the Indiana Council for Economic Education (ICEE). For further information call the ICEE at 317-494-8545.

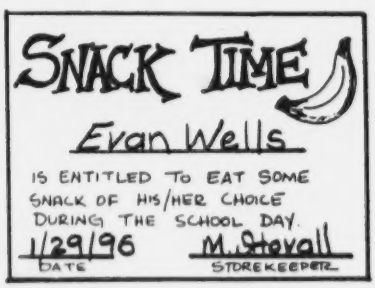
☞ **Parent and Community Support:** Parents are strong supporters of the mini-economy program. They are understandably impressed when talk at the evening meal revolves around subjects "they didn't learn about until high school." It is very common for parents to encourage the expansion of the mini-economy program to other grades.

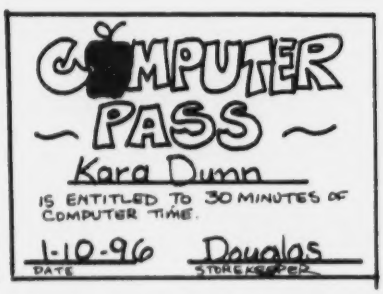
The generous support for the mini-economy from the local community is also encouraging. Business people are eager to visit classrooms and will often provide teaching materials and supplies. Representatives from labor and agriculture are also very willing to provide their expertise and help. Some teachers have asked carpenters to help the class build simple mini-economy structures, such as a store and bank.

☞ **Summary:** The mini-economy is a dynamic and effective form of instruction which can be integrated easily into the curriculum. True, it will require some extra work on your part, especially at the beginning. But after the economy is up and running, you will be surprised how smoothly it operates and how minimal the extra work is, especially if you give enough responsibility to the students.

The mini-economy is a challenge, but a truly rewarding one, for both teachers and students. It is a unique and effective form of instruction which not only teaches basic economic concepts, but also encourages a more integrated curriculum.







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Mini-Economy Tips for Teachers

1. Begin slowly, then progressively add new elements to the mini-economy. Don't try to do too much too quickly.

2. The classroom money must mean something to your students. They must be able to purchase items or privileges they truly value.

3. Have high expectations of honesty. Specify clearly the consequences of cheating or theft.

4. Keep parents informed. Parents are almost always supportive and helpful.

5. Encourage other teachers in your school to implement mini-economies.

6. Develop ways for all types of learners to earn money and to be successful.

7. Use your mini-economy to integrate your curriculum.

8. Make all aspects of the mini-economy as close as possible to real life.

9. Give students responsibility within the mini-economy. Believe in their ability to handle many administrative details.

10. Use your mini-economy primarily as a curriculum tool, not a classroom management tool.

11. Use community resources as much as possible.

12. Contact local newspapers and other media sources to generate positive publicity about your mini-economy activities.

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2.40	5.8	AEP	1964	41½		
.90	1.9	AmExp	6547	47¾	+¼	
1.30	3.3	AGenCpu	375	43⅞	+¼	
3.00	5.7	AGnDE pf	785	53	+⅛	
.27		AGnHosp	npu	57	019½	
+¼						
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1.54	2.4	AHome s	7781	64¼	+½	
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		APadP	nu	741	21½	–⅛
.44	.7	AmReCpu	223	563⅞	+⅛	
		AResidS	n300	18⅝	–⅛	
		AmStd	590	34¾	–⅛	
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.63	8.7	AmsInco	1227	7¼	+⅛	
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		AmerqTc	424	11⅛		
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1.00	2.5	AMP	2232	39½	+⅛	
		Amphnl	953	21⅜	–1	
		Amre	337	14⅛	–¾	
1.60	3.6	AmSouth	934	44¼	+⅝	
.09	.6	AmvestF	192	14⅜		
.79	3.7	AmwayJe	27	21¼	–⅜	
		Anacmp			7/32	
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		Analog s	8065	27¾	+⅞	
.96	2.5	Anheus s	4560	39	+⅜	
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1.12	1.1	Boeingu	7028	96⅝	+¾	
.60	1.8	BoiseC	1324	33⅜	–⅛	
		BoisCOff	s	820	19⅜	+¼
		Bombay	655	5⅜		
2.99		BordChi	631	8⅞		
		Borders	2631	38⅝	–⅜	
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		BorWSc	307	9⅝		
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		Brinker	7816	16⅝	+⅛	
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Chapter 4

Expanding Your Mini-Economy

Introduction

This chapter describes ideas for expanding your mini-economy. If implemented gradually, these ideas will easily become an integral part of the classroom routine. Although an expanding, vibrant mini-economy may seem bewildering to the casual observer, it will be "business as usual" for you and your students.

Ideas for Expanding Your Mini-Economy

Life Necessities	Real Estate
Banks	Businesses
Insurance Companies	Investments
Government and Taxes	Exchange Rates

Life's Necessities

One simple, yet powerful way to add realism to a mini-economy is to require students to pay for various "necessities of life." Students can be charged for food, clothing, desk rental, utilities, or medical services. Being responsible for these necessities is also an excellent incentive for earning classroom income.

Some teachers periodically leave bills on their students' desks. For example, each week or month leave a desk rental bill or electric bill on each desk in the morning before the students arrive. Require students to pay these bills within a certain time period. This is excellent training for the many years of bill paying that lie in the future! It is not necessary to be heavy-handed with these bills. But meeting some financial responsibilities before buying goods or services at the class store or auction is good training for your students.

Another idea is to require students to pay for the *teacher's* instructional services. Each month give each student a bill for "Teaching Services," reminding students that these services, which are often taken for granted, are not free. (At this point you could also discuss taxes and the different income sources of public and private school teachers.)

Class Banks

A bank is a natural for the mini-economy. Although several students will insist on hoarding magnificent wads of currency at their desks, most will want to put some of their money into the class bank, especially if their accounts earn interest. Some teachers deposit wages directly into their students' bank accounts. This facilitates banking procedures and reduces student errors, although students receive less math practice. Also, the impact of receiving a day's wages may be greater if students receive cash directly.

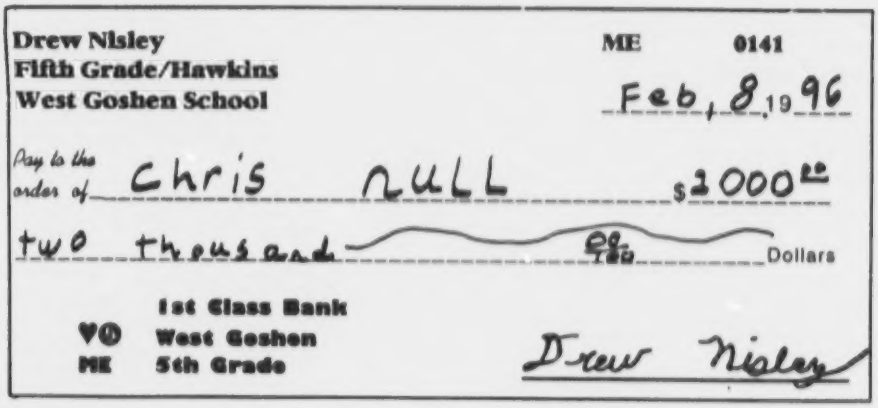
Your mini-economy bank can provide many services offered by real banks, especially checking accounts. Students enjoy using checks (personalized, if possible) to pay their bills. Use the checks provided in Appendix A, or let the students design their own checks. As your mini-economy develops, checks can be designed and produced by classroom businesses. Sometimes local banks will provide checks. Bank representatives are usually eager to explain checking and banking procedures with your students. Teachers who normally teach a unit on checking will find that the mini-economy is an excellent vehicle for the practical application of this instruction.

☞ **Computing Interest**: Students will want to earn interest on their checking and savings accounts. For the interest to impact student decisions in the mini-economy, the time frame associated with giving interest needs to shortened. For example, one month might equal one year. Require money to be deposited for a certain number of days before interest can be received.

Students must compute interest if your class bank makes loans. This provides an excellent opportunity to teach about the benefits and dangers of credit. Bank loans and interest payments offer excellent practical examples for teaching math lessons on basic algorithms, rounding, percents, and decimals.

To help with computations, many teachers use the *Mini-Economy Banking Program* in their mini-economy. This useful software (Apple IIe, DOS, or Macintosh 6.0 or below), developed by

the Indiana Department of Education, can be ordered through the Wilson Education Center for only $10 (812-256-8000). The program summarizes account balances, keeps track of deposits and withdrawals, and computes interest. You may wish to have your students do these tasks by hand, and then introduce the software later in the year.


Drew Nisley
Fifth Grade/Hawkins
West Goshen School

ME 0141

Feb, 8 1996

Pay to the order of Chris NULL $2000.00

two thousand 00/100 Dollars

1st Class Bank
VO West Goshen
ME 5th Grade

Drew Nisley

☞ **Banking Jobs**: Class banks provide jobs for the classroom. Students usually enjoy being tellers and will carefully complete job application forms (Appendix A) to get these jobs. This is an excellent time to explain how one's human capital (skills such as mathematical ability, neatness, and clerical accuracy) is a crucial factor in getting a good job.

Stress the importance of clear, concise English, accurate spelling, and neat writing on the job applications. It is very worthwhile requiring students to state why they want particular jobs. The responses will be quite revealing, ranging from serious attempts to sell one's skills ("Because I am good in math, and I can be there every night because I am never absent.") to desperate and often quite amusing pleas for help ("For my rent to keep my home, and for my insurance, and for the big sale, I need the money bad!") Some teachers require job applicants to submit letters of recommendations, usually from adults not in the applicant's immediate family.

☞ **Student Owned Banks:** While the first bank in a mini-economy is usually "teacher-owned," you should consider letting students own and operate their own banks. Student owners must be responsible for the many tasks of running a bank: determining interest payments, making loans, issuing checks, setting wages, and hiring and firing employees. Establish some business guidelines, but don't make them too rigid. Much learning takes place when students are given the opportunity to make and bear the consequences of their own decisions.

Initially, there may be too many student banks. As owners experience the inevitable start-up costs and have difficulty getting enough customers because of competition, unprofitable banks

will soon go out of business, leaving just enough to handle normal business activity. Bank owners may decide to sell their banks to other students. Let students work out the contractual details of the sale, including terms of payment, use of old bank forms, use of desk rental space for the bank, retention of former employees, and adequate money reserves. In dealing with these issues, many students will display surprising business acumen.

☞ Practical Banking Tips and Ideas:

✏ ***Accurate Record Keeping*** -Since there are sometimes difficulties keeping accurate written records of students' checking or savings accounts, it helps to use an account statement form that requires students to compute the addition or subtraction *on the form* (Appendix A), instead of carelessly doing it in their heads. This also makes it easier to locate computation errors.

Instead of personally examining checking/savings accounts for errors, teachers should hire an "accountant." This student can identify the careless party, who must then pay the accountant fees! This provides a strong incentive for student accuracy.

Another way to ensure better accuracy is to require the use of deposit and withdrawal slips (Appendix A), even if banks use the *Mini-Economy Banking Program*. This helps bankers and accountants monitor transactions and also adds a measure of realism.

✏ ***Banking Hours*** - It is helpful having set banking hours. Banks might be open before school, as students are arriving and getting settled, and during the last ten minutes of the day. Some teachers open the banks during indoor recess periods. If there is overcrowding at banks, this increased demand for bank services can be an incentive for students to open other banks or for banks to raise their fees. This situation provides an excellent opportunity to teach the important economic concepts of scarcity, market price, supply, and demand.

✏ ***Keeping Bank Funds Safe*** - Some central, safe place is needed for the banks to keep their funds. A filing cabinet or desk drawer is usually satisfactory, and in most situations, should not even have to be locked.

Insurance Companies

Insurance is one of the most popular aspects of the mini-economy. It can be incorporated quite easily into your mini-economy, and provides an excellent opportunity to use community resources. Insurance people enjoy coming to the classroom, and frequently will provide free teaching materials. Two basic types of insurance protection may be necessary in a mini-economy: (1) Protection against imaginary accidents and (2) Protection from real risks incurred by students in the classroom. These are explained in more detail below.

☞ **Protection Against Imaginary Accidents:** Designate one day each week as "Accident Day." Tell students that on this day three "accidents" will occur, one from each of the following three categories: automobile accident, household disaster (e.g., flooded basement), and medical problem. Within each category create seven possible accidents and describe these on 3 X 5 inch "Accident Cards." For example, a sample medical card could read, "You fractured your wrist during a softball game and had to go the emergency room. The wrist required a cast. Pay $700." An automobile accident card could read, "You backed into your neighbor's car. Pay $800 damages."

On Accident Day randomly draw one Accident Card from each category, and then randomly draw one student's name for each accident. These three unlucky students must pay for the costs of their accidents. It won't take long before your students are begging you for some type of insurance. Comment that this sounds like a good idea and proceed to explain the concept of insurance. This is a good time to invite a representative from an insurance company to speak to the class.

Initially, the teacher should own the class Insurance Company. Hire agents to sell the three different types of insurance, collect premiums, and keep track of all records. (See Insurance Forms in Appendix A) On Accident Day, students who have purchased insurance policies are not liable for any damages should their name be drawn. To train students to be responsible consumers, *require them to renew their policies every 30 days.* Forgetful students may have to learn the hard way about keeping insurance policies up to date.

☞ **Protection From Real Risks Incurred By Students:** In your mini-economy, there are other risks that your students may want to avoid. One example is insurance which pays lost wages to students who are absent. Students will devise creative ways to determine the cash payment in case of absence. They will also learn to charge premiums which reflect a student's past absentee record. High risk students, who are frequently absent, will have to pay higher premiums!

☞ **Student Operated Insurance Companies:** Letting students run their own insurance companies adds excitement and a wonderful element of realism to a mini-economy. Not only is "Accident Day" a time of suspense for those students electing not to purchase insurance, but it also becomes a time of great suspense for *owners* of insurance companies. They don't want their clients to have accidents, since damages must be paid by the company!

Many valuable lessons are learned when students form their own companies. Aspiring entrepreneurs may want to form partnerships. They need to obtain a business license from the teacher, create insurance forms, and deposit a specific amount of money in a reserve to cover any accidents their clients might incur. For a fee, companies can advertise on the "Financial New" bulletin board or in the class newspaper. Students must choose what types of insurance to sell and what premiums to charge.

Some of your students will view insurance companies as a way to "get rich quick," and initially there will be too many insurance companies in your classroom. This stiff competition will result in few clients and low revenues for individual companies. Consequently, several will be forced to go out of business, leaving just enough companies to handle the classroom's insurance needs.

Insurance Policy

Type of Policy Health **Date** Jan. 8th

Coverage: Covers all costs minus deductibles.

Deductible: -0- **Expires:** Feb. 1st

Insurance Agency: Heyse's Class

Agent's Initials: K. H.

Other Terms of the Policy: Paid sick days ($5.00 a day)

Buyer's Signature Angie Stauffer

Real Estate

One of the easiest ways to add realism and excitement into your mini-economy is by introducing the concepts of real estate and private contracts. It's a natural for a mini-economy classroom and, like insurance, provides a great opportunity to use community resources. Real estate activities may at first appear complex; but once in place, they will function with minimal attention, especially if students are given responsibilities. The rewards are well worth any extra effort.

☞ **Desk Auction!** You may already be charging your students a desk rental fee as part of the "Life's Necessities" aspect of your mini-economy. It is a simple matter to take this one step further and *sell* desks to your students. One easy way to do this is to hold a desk auction.

Come to class one day and announce that in the near future you will no longer charge a weekly desk rental fee. After the cheers subside, announce that you instead will sell each desk in two

weeks at a large desk auction. Emphasize that students had better start saving for this auction. If they do not purchase a desk, they must rent from a classmate that has purchased more than one. Explain, however, that home owners will be assessed monthly real estate taxes and home maintenance costs. Discuss other advantages and disadvantages of buying and renting.

On the day of the auction there will be quite a bit of excitement in the room. Auction each desk, assigning a House Title (Appendix A) to each. Rest assured that some students will purchase more than one desk, and will be eager to rent to their classmates. In one mini-economy classroom, a boy owned five desks and still rented from someone else. Evidently, he was earning more by renting the fifth desk than he was paying in rent himself!

To add interest and realism, auction more desks than there are students. Potential landlords, who wish to purchase more than one desk, must then risk not finding tenants. Having more desks than students also reduces the possibility of a student having to pay an exorbitant rent for the last remaining desk in the room. In practice, students usually find creative uses for extra desks, such as for a "vacation home" or for additional storage. Of course, students must still pay real estate taxes and maintenance costs on these extra homes.

☞ **The Importance of Contracts:** This is a good time to study the importance of private contracts in our economic system. The need for contracts will arise naturally as landlords and renters both seek written guarantees for their rental agreements. To reduce minor arguments and disagreements, you can use the rental contract provided in Appendix A. It may be even more instructive to first let the inevitable squabbles over rental agreements illustrate the need for written contracts.

Rental Contract

Date Jan. 8th

I promise to rent house number Room 33 **from** Jan. 8 **for at least** 4 **weeks, beginning on the above date. I will pay a rent of** $5.00 **per week.**

Other terms of the contract:

Signature of Renter amy Fager

Why not let students formulate their own contracts? Bring a real rental agreement to class and analyze its components. Some key elements students may want to include in a typical contract include a description of the property, the rental rate, length of occupancy, terms of payment for damages (which discourages writing on desks), number of days notice before vacating, and penalties for nonpayment of rent. Let your students be creative and learn from their mistakes.

☞ **Business Property:** Another worthwhile idea is to designate a portion of the classroom or another vacant room as the "business area," where students are required to purchase or rent property to operate a business. Students must decide if their business will generate enough revenue to cover real estate costs. You can auction all business "properties," including desks, tables, chairs, shelves, window ledges, as well as the actual floor space.

A business could buy properties outright or could rent them from other students. Owners are free to sell their business property at any time, earning a capital gain or capital loss. They will learn how the value of a piece of property is linked to its contribution to business profits. Owners will also see that any increase in the value of a piece of property will be realized (capitalized) by the current owner. Subsequent buyers must pay the higher price, resulting in higher business operating costs and possibly lower profits.

☞ Practical Real Estate Tips and Ideas:

✏ ***Keeping Records*** - Hire a student recorder to keep track of all title changes and current desk owners, paying him or her for recording fees collected from students. This discourages too frequent selling of desks and is an incentive for the recorder to make sure that all desk transactions are recorded. *Remember, one of the purposes of the mini-economy is to encourage student responsibility, not to burden the teacher with extra work.* The natural reaction of most teachers is to try to keep things under control by doing everything themselves. Instead, before initiating any new aspect of your mini-economy, ask yourself this question: "Could my students do this?" More often than not, the answer will be "yes."

✏ ***Business Property Board*** - If limited space does not permit actual business properties within the classroom, create a colorful property board describing the available real estate. (Better yet, why not have the students create one as an art project?) Require students to own or rent one of these fictitious pieces of property in order to operate a business.

✏ ***Sell By the Square Foot!*** -If your classroom floor consists of square "tiles," you can sell business property by the square foot. This is great math practice, especially if the tiles are not exactly 12 inches square.

✏ ***Contract Bulletin Board*** - the rental contracts that your students create make anattractive bulletin board theme/display.

Classroom Businesses

It has been said that the business of America is business. While this does not describe the main "business" of the elementary school classroom, there is great value in exposing students to the many interesting and worthwhile aspects of the ever-present business world. Mini-economy businesses provide the perfect opportunity to do just that. Indeed, many teachers report that classroom businesses are the most rewarding and instructive aspect of their mini-economies.

☞ **Business Structure:** How you structure your business activities will vary. The most common practice is to designate a specific 30 to 45 minute "Business Time" every week or every other week, usually on Friday afternoon. At that time students, often working in pairs, operate their own businesses and shop at other businesses.

In some classrooms there are ongoing businesses, such as banks, insurance companies, accountant services, etc. Teachers typically let these businesses operate during non-instructional time, usually before school as buses are arriving, at the end of the school day, and during indoor recess.

☞ **Types of Classroom Businesses:** Students can operate a variety of businesses in a mini-economy. Many of these were listed in Chapter 3. *While some basic guidelines are necessary, give students as much freedom as possible.* This encourages creativity and active decision-making. In fact, students who run businesses must continually make a variety of decisions that directly affect their financial standing in the classroom.

For example, a student considering whether or not to grow and sell plants must first consider the costs for labor, materials, rent, and advertising. What types of soil, fertilizer, and plants should be used? Where should inventories be kept? Who will take care of the plants during extended vacation periods? Is it worth spending money on advertising? What if no one purchases the plants? If other students see the profits and decide to sell plants, would prices have to be lowered? A skillful teacher can use these problems generated by class businesses to teach economic concepts, develop critical thinking, and encourage responsibility - important aspects of any elementary curriculum.

☞ **An Important Caveat:** Purchased items brought from home to sell or use in production can become a special problem. For example, valuable rare coins or a recent birthday present should not be brought and sold in mini-economy businesses. And it involves little creativity to buy snacks and drinks from the store and sell them to classmates. *As a basic rule, encourage students to operate businesses that involve work and creativity, but little real money.* The following guidelines should be helpful.

✏ ***Set Money Limits*** - Set a specific limit on the amount students are allowed to spend on their business. This will spark creativity. For example, instead of purchasing cokes, students can make lemonade. Instead of purchasing toys to sell, students can create original drawings or make paper wallets.

✏ ***Encourage Creative Service Businesses*** - Encourage students to start service businesses, such as face painting, desk cleaning, problem solving, a homework reminder service, manicures, and acting lessons.

✏ ***Charge for Inputs*** - Students who insist on bringing many inputs to operate their businesses can be charged play money for using these inputs.

☞ **Exclusive Monopoly Businesses:** The teacher can sell or auction the rights to exclusive monopolistic classroom businesses, such as the right to charge classmates for using the pencil sharpener or visiting the restroom. First, designate specific times when students can use the pencil sharpener or the restroom *without* paying, such as between classes or before recess. If students choose to use the pencil sharpener or restroom during "non-appropriate" times they must pay a fee, determined beforehand by the teacher, to the student owners of the pencil sharpener and restroom business. (The teacher gets to determine the fee since this is a monopoly situation.)

Auction these monopolistic business rights periodically, say every two weeks. Wise students will try to estimate the future demand for these services and bid accordingly. It will quickly become apparent that the business owners are not guaranteed a profit, since the fees owners collect may not cover the price they paid to own the business.

One of the nice effects of these unique businesses is that trips to the restroom or pencil sharpener decrease dramatically. This shouldn't surprise you, since it illustrates perfectly the Law of Demand - that consumers will buy less of a good or service at higher prices!

Government and Taxes

Government and taxes are aspects of the mini-economy that are easy to implement and which provide an interesting backdrop for stimulating lessons and discussions about the role of government in a market economy. Even if there is no classroom government in operation, you should consider imposing taxes, since most students are aware of the necessity of some taxes. Primary students also can be introduced to taxation. Simple sales and income taxes for various government services are concepts that younger children grasp rather easily.

☞ **Getting Started with Taxation:** Inform your students that each day they are receiving free "legal services" and "police protection" from you. You are keeping order, settling disputes, and setting economic guidelines. Explain that henceforth, you will be paid for these services with taxes collected from the class! This is the time to discuss the necessity of government and taxation in our economic system and society. Brainstorm and discuss the different types of taxes. Analyze them against criteria such as fairness, political acceptability, neutrality, adequacy, and efficiency. Decide which tax would be appropriate for the class.

☞ **Income Taxes:** Students should keep track of their monthly income on Income Record Sheets (Appendix A). On a specific "Tax Day" each month, have students compute their income taxes on Income Tax Forms (Appendix A). Initially, use a flat percentage rate and tax only income from wages. Later introduce graduated rates and tax other kinds of income, such as interest and capital gains. This will certainly lead to a spirited discussion about the graduated income tax and tax fairness!

You may wish to allow tax deductions for "charitable contributions." One teacher allowed deductions for contributions to a Field Trip Fund. Reaching a specific dollar goal earned students the right to go on a field trip. They carefully plotted weekly contributions on a thermometer graph and eventually earned their trip. The fund was valuable not only because the students earned the trip themselves, but also because it encouraged them to give to a worthy cause.

TAXES

Name Betsy Wiard	Income	Deductions	Year To Date
Income	40.70		233.14
Federal Tax		8.14	46.61
Social Security		1.62	9.30
Indiana Tax		.41	2.92
Net	30.53	10.17	174.88

☞ **Other Taxes:** Your class may decide to implement other types of taxes, such as a sales tax, property tax (for desk ownership), capital gains tax, or a head tax (flat fee per person). All of these can be implemented in a mini-economy.

☞ **Paying for Actual Government Services:** While students will endure paying taxes for imaginary government services, actual classroom uses for the taxes prove more effective. Some teachers hire various types of government workers such as tax collectors, postal workers, sanitation workers, or police officers. Some classes elect legislators and judges to create rules and administer justice. Their salaries are also paid out of taxes.

Using tax receipts to pay for these actual services illustrates to students the link between government services and how they are financed. Complex mini-economies with a class government could let the elected government officials determine the government services that should be provided, government worker salaries, types of taxes, and corresponding tax rates.

☞ **Practical Teaching Tips and Ideas about Government and Taxes:**

✏ ***Tax Increases*** - From time to time announce pay increases for your personal teaching services or for the services of other government employees in the classroom. This will require students to decide how to finance these increases and determine which services are really necessary.

✏ ***Welfare Payments*** - Some teachers provide welfare payments for students who do not have jobs or who lose their jobs. If these payments come from taxes taken from other students, it will lead to a spirited discussion of our welfare system.

✏ ***Student Workers/Tax Collectors*** - Be sure to use student workers to help you with this aspect of the mini-economy. If you don't, you will become bogged down with too many administrative details.

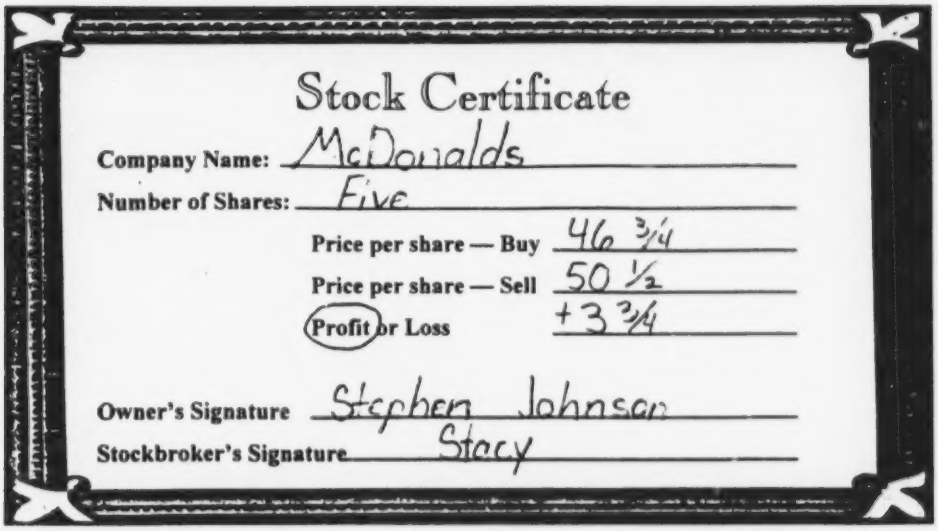
Investments

Adding investments to the mini-economy creates much interest and enthusiasm. They are easy to implement, since a classroom money system is already in place, and they provide an excellent opportunity to use many basic mathematics skills.

☞ **Common stocks:** Hypothetical investing in the stock market has long been a traditional classroom activity. Students pretend to invest in specific stocks, and then follow their investments in the financial section of the local newspaper, recording either profits or losses. The mini-economy, however, adds a level of realism not present in typical stock market projects, since students are confronted with the possibility of "real" classroom currency losses and gains.

✏ ***How To Do It*** - Begin by teaching your students the basics of stocks and the stock exchange. There are many excellent sources of information. The *Stock Market Game Guide*, published by the Securities Industry Foundation, contains very useful information and many student activities. It can be obtained from the Indiana Council for Economic Education (ICEE). Local brokerage companies have excellent information about the stock market. The Standard & Poor's Corporation (25 Broadway, New York, NY 10004) and The Dow Jones & Company (P.O. Box 300, Princeton, NJ 08543-0300) also provide a variety of useful information.

After your students have studied stock basics, *give* each one 10 (or 100) shares of a particular stock chosen from the financial pages of the newspaper. Choose 25 or 30 stocks and draw student names out of a hat to determine stock distribution. Give each student a certificate proving their stock ownership. (Use stock certificate form in Appendix A.) Students plot stock prices for a month. Then use mini-economy currency to buy back these shares from your students. They will be very pleased!



Stock Certificate

Company Name: McDonalds

Number of Shares: Five

Price per share — Buy 46 3/4

Price per share — Sell 50 1/2

Profit or Loss +3 3/4

Owner's Signature Stephen Johnson

Stockbroker's Signature Stacy

Finally, let your students purchase stocks with their own mini-economy money. Initially, hire a stockbroker to handle all transactions, letting the broker also collect a small transaction fee. Soon students will want to open their own private stockbroker businesses. Post the financial pages regularly in your classroom so students can follow stock prices and let students buy and sell at their own discretion. From this point on, this aspect of your mini-economy will run pretty much on its own.

✏ ***Dividends:*** Corporations often pay quarterly dividends to shareholders. This per share dividend amount is provided in the daily stock listing in the newspaper. When a new quarterly dividend is declared, an "x" (or some other code) appears in the stock listing. On these days you can give student shareholders the actual dividend payments. Students must be on the lookout for dividend distributions!

✏ ***Math Practice*** - Introducing stock investments is an excellent way to introduce a variety of math concepts, especially fractions. For example, create word problems that focus on stock transactions. (GM closed at 68 3/4 per share yesterday, but it dropped 1/2 today. What is the new price?) Other mathematical skills include using standard algorithms in transactions, rounding fractions to the nearest whole number, and changing fractions to decimals. What's more, students will grasp these mathematical concepts more readily since they actually use them in day-to-day stock transactions.

☞ **Precious Metals and Commodities:** Investing in precious metals and other commodities is very simple and will be particularly interesting to students who live in areas where specific commodities are actually produced. Prices of corn, wheat, gold, silver, and other commodities are listed in the Cash Prices section of the *Wall Street Journal* or in the financial section of some other newspapers.

Post daily commodity prices on the bulletin board. Let students determine which commodities they want to buy at these prices. In return, students receive a Commodity Certificate (Appendix

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A). At any future time they can sell the commodity, hopefully earning a profit. Of course, let student commodity brokers handle all transactions.

☞ Two Points to Remember:

✏ ***Supply and Demand*** - Don't forget that a primary goal of implementing stocks and commodities in your mini-economy is to help students analyze fundamental supply and demand conditions that affect the prices of their investments. For example, explain how weather conditions influence crop prices, and then encourage students to consider weather factors when purchasing farm commodities. Or have students collect newspaper articles which illustrate how certain events such as mining discoveries, bank failures, international political tensions, or changes in market interest rates influence precious metal prices.

✏ ***Calculators*** - It makes sense allowing students to use calculators with especially difficult calculations. This is certainly true when trying to figure how much gold at $377.75 per ounce one can buy with $1,550. Much of the real mathematical value of commodity trading is in determining *how* to figure the final purchase or selling price, not in laboring over extremely difficult arithmetic calculations.

Exchange Rates

Introducing your students to exchange rates is easy, especially if one or more of your colleagues has also implemented a mini-economy with a different currency and price structure. At certain times during the year, designate a time when students can make purchases in the other mini-economy classrooms. (Or have a common auction.) You must determine approximate price levels in the other classrooms in order to determine exchange rates. For example, if a colleague's prices are approximately four times the prices in your classroom, then the exchange rate should be four to one. That is, your students should be able to purchase four units of the other currency for one unit of their own.

Of course, you can allow students to figure this out themselves, but be prepared for some unhappy shoppers! For example, at a common auction students from classrooms with "inflated" currencies will be able to buy most of the auction items. It won't take long for other students to notice this disadvantage and demand some sort of compensating exchange rate. See if they can figure out what a fair exchange rate would be.

FORM 2-6

Product Cost Computation Sheet

Our cost estimate will assume we are producing 12 doz. products.

	Quantity	Unit Cost	Total Cost Quantity x Unit Cost
Natural Resources (Raw Materials)			
	3 Flour (5 lbs).	$1.49	$ 4.47
	2 Suger	1.35	2.70
	Salt		.25
	2 eggs		1.78
Human Resources (Labor)			

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Chapter 5

Teaching Economics in the Mini-Economy Classroom

Introduction

The mini-economy classroom provides a perfect setting for teaching students the basic economic concepts that are part of the social studies curriculum. Economics instruction can take place using: (1) The Actual Classroom Environment, (2) Existing Curriculum Materials, and (3) Specific Mini-Economy Activities.

1. The Actual Classroom Environment

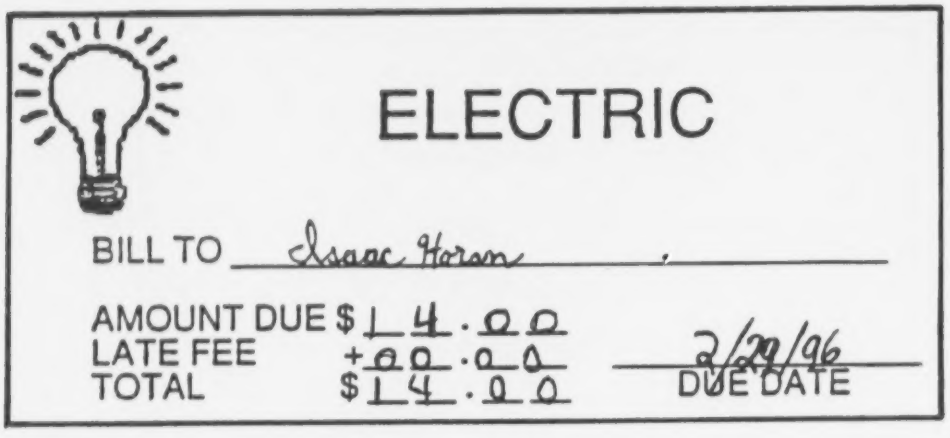
Economics is an integral part of the world around us and permeates virtually all facets of life, including the elementary and middle school classroom. This section describes how to teach economics using everyday classroom situations and using economics vocabulary in daily classroom discussions.

☞ **Using Everyday Classroom Situations:** You can teach your students many economic concepts using the everyday classroom situations. Various concepts and how they can be taught are explained below.

✏ ***Goods and Services*** - There are many examples of goods and services in a school, the most obvious being the teaching services provided by the teacher. Discuss whether the students' parents produce a good or a service in their work.

✏ ***Productive Resources*** - All goods and services, including education, are produced using productive resources. Have students list and classify the productive resources necessary to produce the education they are receiving.

✏ ***Scarcity, the Basic Economic Problem, and Opportunity Cost*** - The reason economics is so pervasive is because scarcity, the basic economic problem, is so pervasive. Scarcity, and the resulting need to choose among competing alternatives, affects everyone, even elementary and middle school students.



Where should the class go for a field trip? Who gets to use the classroom computer? What software should the teacher buy? Who gets the playground ball at recess? These common examples, and many others like them, point out the reality of scarcity and the need to make choices. The teacher can then explain how each choice entails an opportunity cost and can help students identify this cost.

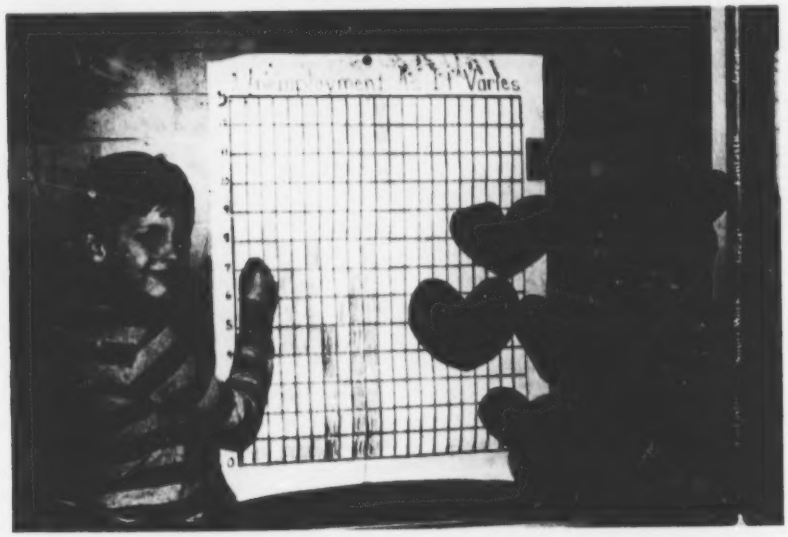
✏ ***Allocation Mechanisms (Who Gets It?)*** - Typical scarcity situations like those mentioned above reveal the need for some kind of allocation mechanism to determine who gets to use the scarce resource. For example, how *could* scarce time on the computer be allocated? There are various ways, such as "first come-first served," those who finish work first, alphabetical order, or those willing to purchase (with mini-economy dollars?) the right to use the computer. The main point to emphasize is that because of scarcity, some allocation method *must* be employed to determine who uses limited resources.

✏ ***Specialization, Division of Labor, and Interdependence*** - Individuals specialize in what they produce and then trade to acquire other desired goods and services. Custodians, teachers, maintenance personnel, secretaries, nurses, and cafeteria workers all have special jobs within the school building.

Specific production processes are also specialized. This division of labor is evident in the operation of the school cafeteria, where kitchen personnel perform different tasks to produce meals efficiently. Even teaching responsibilities (art, music, physical education, etc.) within a school are specialized.

A major result of specialization and division of labor is always interdependence. Discuss how individuals in a school depend on each others' skills and abilities.

✏ ***Productivity*** - There are various ways for schools to become more productive. Some of these ways include the use of more and better physical capital, and specialization and division of labor. Identify capital resources (desks, overhead projectors, school building, etc.) that enable teachers to provide education services more efficiently. How have increases in technology (VCRs, computers) improved teacher productivity?



Specialized training also helps school personnel become more productive. Discuss the kinds of training (preservice and inservice) that teachers receive to become and remain productive in their professions. Do other school personnel receive specialized training?

✏ ***Government and Taxes*** - Students in public schools should understand that their education is financed by taxes paid to government by individuals and businesses. It is the government, and not the price system, that determines how taxes are allocated to public education. Students in private and parochial schools should understand that their education is financed primarily through tuition payments, which are determined primarily by supply and demand.

☞ **Using Economics Vocabulary:** During the course of a school day there are many opportunities to use economics vocabulary, whether or not mini-economy activities are occurring. Making this vocabulary a normal part of a student's thinking process reinforces the understanding of basic economic concepts without introducing formal economics lesson. Below are typical sentences followed by ways to rephrase the sentences using economics vocabulary.

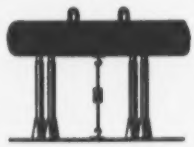
1. There aren't enough desks by the window for everyone.
   Desks by the window sure are **scarce**.

2. How do we decide who gets to sit by the window?
   How can we **allocate** the desks by the window?

3. If we play softball at recess, we can't play kickball.
   If we play softball at recess, our **opportunity cost** is giving up the chance to play kickball.

4. The school secretary's job is important to our school.
   The school secretary provides a valuable **service** to our school.

5. The school supply company delivered the gymnastics equipment today. What other things do they sell?
   The school supply company delivered the gymnastics equipment today. What kinds of **goods** do they sell?



6. What will you give me for these baseball cards?
   What will you **exchange** (**barter**) for these baseball cards?

7. What kinds of things do you need to build a school?
   What kinds of **productive resources** are necessary to build a school?

8. What tools and equipment are workers using to fix the downed telephone lines?
   What kinds of **capital goods** are workers using to fix the downed telephone lines?

9. A good education will make you a better worker. It is a way to improve your skills and knowledge.
   A good education will make you more **productive**. It is a way to **invest** in your **human capital**.

10. In our school building, there are many different kinds of jobs.
    In our school building, people **specialize** in different types of jobs.

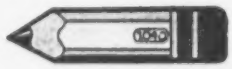
11. You can get more math problems done using a calculator.

You can be more **productive** using a calculator.

12. How much do hamburgers cost at the drive-in?
What is the **market price** of hamburgers at the drive-in?

13. Did we make any money on the class bake sale?
Did we earn a **profit** at the class bake sale?

14. There are so many students buying NFL pencils that the bookstore can't keep enough in stock.
There is a **shortage** of NFL pencils in the bookstore. If the bookstore doesn't increase the **supply** of pencils, the **price** will probably rise.



15. The price of everything is rising!
Our economy is experiencing **inflation**. The price of everything is rising!

16. Susan's dad just lost his job. How can we help her family?
Susan's dad is now **unemployed**. How can we help her family?

17. Do you think the new pizza restaurant will cause the older one to go out of business?
Do you think the **competition** from the new pizza restaurant will cause the older one to go out of business?

18. I had another flat tire on the way to school. I wish they would fix those potholes!
I had another flat tire on the way to school. I hope the **government** uses our **taxes** to fix those potholes!

Using economics vocabulary in day to day classroom conversation can be a bit stilted, and it will seem awkward at first. But as you begin to internalize these concepts yourself and as you become more aware of the economic world around you, you will find it easier and easier to use economics vocabulary. It's a powerful tool for teaching economics.

2. Existing Curriculum Materials

Economic concepts and themes are found throughout the curriculum. This section gives you just a few examples of how to emphasize these concepts as you encounter them in your curriculum.

☞ **Social Studies:** Social studies textbooks frequently introduce concepts such as needs and wants, productive resources, work, goods and services, community workers, production, division of labor, government services, taxes, trade, money, profit, technology, and economic systems. Although these concepts are not usually taught as part of a comprehensive economics curriculum, they are good starting points for more in-depth instruction and for the introduction of other appropriate economic concepts. Certain social studies teaching units are ideal for introducing economics. For example, in the study of early Indiana history, teachers can pose a variety of questions dealing with economics.

- What goods and services did pioneers and Indians produce in order to trade?
- Why did they trade?
- Who benefited from the trade?
- What capital goods were used to produce the goods and services that were traded?
- How were prices determined?
- What kind of money was used?
- What were the economic reasons for using river transportation in trade and settlement?
- Why did pioneer families often produce a wide variety of goods and services?
- Were large pioneer families an economic burden or an economic asset?
- What was the economic role of pioneer women? How has that role changed? Why?

As you can see, just this small part of the fourth grade social studies curriculum provides the opportunity to cover many of the economics concepts outlined in the *Indiana Curriculum Proficiency Guide.*

☞ **Language Arts:** The favorite way teachers introduce economic concepts in language arts is through children's stories. Stories frequently have economic themes, and short discussions of economic concepts arise naturally. You can use stories to introduce or conclude specific social studies lessons on economics, or use the stories as the actual focus of economics instruction.

A popular resource is *Economics and Children's Literature* (SPEC Publishers, Inc., 1006 Regency Manor Dr., Ballwin, MO 63011, 314-891-0043, approximate cost $35). It contains 45 lesson plans on popular children's fiction and nonfiction for Grades 1-3 and 4-6. The National Council on Economic Education's (800-338-1192) *Learning Economics Through Children's Stories* also contains a helpful bibliography of children's stories.

Creative writing assignments can emphasize economic themes. Possible essay titles are "The Most Difficult Thing About Running a Business" or "Why Education Can Make Me a More Productive Worker." Students can also create original advertisements or business slogans.

For handwriting, have students complete an imaginary job application. (Of course, if you have a mini-economy, students can apply for classroom jobs.) Emphasize the importance of neat writing and correct spelling on the applications.

JOB APPLICATION

(PLEASE COMPLETE THIS FORM CAREFULLY AND NEATLY)

Name Kelly Date January 31 1996

Social Security Number 020-09-9501

Job title you are applying for: Boardwasher

List your qualifications for this job: I'm an expert at it and my brother taught me everything I need to know because he had that job 3 years ago

Why do you want this job? Because I think I can do a excellent job at keeping the boards clean

List two other jobs you would accept if this one is not available.

1. fish feeder
2. Home workhelper checker

Signature Kelly

☞ **Mathematics:** It is easy using the math curriculum to help teach economics. For example, story problems can have economic themes and vocabulary.

Mary and Christie sold 18 glasses of lemonade at $.50 a glass. What were their **total revenues**?

If the two girls had **costs** of $.25 per glass, then what was their **profit** on all glasses sold?

Jason has $16.00 in his checking account. If he deposits $17.00, what is his new **balance**?

Erin bought a share of Exxon **stock** at 43 1/2 and sold it for 47 3/4. What was her **capital gain**?

WATER

BILL TO Timmy Daly

AMOUNT DUE $50.00
LATE FEE + 1.00
TOTAL $51.00

3/2/96
DUE DATE

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Entire units or specific lessons may center around economic themes. Why not teach addition and subtraction using checking account forms? Tests and worksheets could require students to calculate various deposits and withdrawals to determine a correct balance.

☞ **Summary:** A common frustration expressed by elementary teachers is the scarcity (economics vocabulary!) of instructional time during the school day. For many teachers, the thought of introducing economics into their social studies curriculum can be rather overwhelming. This section illustrates various ways to teach economics without greatly modifying your existing curriculum. More importantly, the economic content will be meaningful to students since it will relate to everyday classroom situations and curriculum lessons.

3. Teaching Economics Using Mini-Economy Activities

The following section identifies economic concepts that you can teach using specific mini-economy activities. Each mini-economy activity is followed by a list of various economic concepts. The lists are not exhaustive, and teachers will be able to identify other concepts that would apply. Obviously, in most mini-economy situations, *it will not be practical or appropriate to introduce all of the concepts listed under a particular activity.* Teachers must consider their own training, grade level, student characteristics, and curriculum guidelines. However, this section is very important for teachers who want to use their mini-economies to teach more economics.

☞ **Jobs:** In most mini-economies, students earn income by performing various classroom jobs. This provides the opportunity to teach many basic concepts.

✏ ***Human Resources (Labor):*** Classroom jobs are an example of human resources, one of the productive resources.

✏ ***Scarcity*:** Human resources, like other productive resources in a mini-economy, are scarce. They are not freely available in unlimited quantities. Thus, teachers and student business owners must pay wages to obtain human services.

✏ ***Wages*:** Wages are the income workers receive for labor services. Skilled workers receive higher wages than unskilled workers because their education and training make them more productive and valuable to businesses.

✏ ***Opportunity Cost*:** When students choose to do one job, they give up the opportunity to do another. The most valued job <u>not</u> chosen is their opportunity cost. All economic decisions have an opportunity cost.

- ***Human Capital*:** The skills that students already have or learn on the job comprise their stock of human capital. Workers with special skills are more productive (and scarce!) than unskilled workers and therefore earn higher wages.

- ***Specialization*:** Student workers will specialize in the types of labor they perform. Specializing enables workers to be more productive. Workers who have highly specialized skills are sometimes very scarce (NBA stars) and earn much higher wages than other workers.

- ***Inflation*:** Announce that you will double existing wages and salaries. Your students will be thrilled; but without an increase in the goods and services that can be purchased with the increased wages, the students are actually no wealthier. Higher money wages result only in inflation. Watch the classroom price level rise!

☞ **Stores:** Stores are common to mini-economies and can be used to illustrate many economic concepts.

- ***Goods and Services*:** The tangible items offered for sale in mini-economy stores are goods, as opposed to services.

- ***Consumers and Producers*:** Students purchasing goods and services at the store are consumers. Students who provide goods and services to sell are producers.

- ***Middlemen:*** Retail store owners who buy the goods they sell from other producers are actually middlemen. They make it easier for consumers and producers to interact, thus reducing the costs of economic exchange.

- ***Inventory***: The unsold goods in a store are its inventory. An inventory acts as a buffer against immediate fluctuations in price caused by changes in supply and demand.

- ***Scarcity***: Goods sold in the store are scarce. That is, at a *zero price* there are not enough goods to satisfy everyone's wants. Student income is also scarce. Because student can't purchase everything they want, they must make consumer choices.

- ***Opportunity Cost***: When students purchase an item, they give up the opportunity to either save or purchase something else. There is an opportunity cost to every purchasing decision.

- ***Price***: Because goods and services are scarce, some allocation mechanism is needed to determine who will have the right to use goods and services. In a store, price is the allocation mechanism. Students who can afford to purchase the goods and services can obtain them.

- ***Valuing and Consumer Preference***: A consumer who places a high value on a good is more willing to pay a higher price for the good. If consumers place a low value on a good, they are less willing to pay higher prices.

- ***Benefits of Exchange (Trade)***: When a buyer purchases goods from a seller, *both* buyer and seller benefit; otherwise the exchange would not take place!

- ***Money***: Money used in purchases has no intrinsic value. The money has value because it is accepted as a medium of exchange when purchasing goods and services. Buyers and sellers use money because it reduces the cost of exchange.

- ***Markets***: Markets are where buyers and sellers interact. A classroom store can be considered part of the products market. In a market, buyers (consumers) want to buy at low prices. Sellers (producers) want to sell at high prices. The agreed upon price is the market price.

- ***Demand***: If students are willing and able to purchase goods from a class store, then there is a demand for those goods. The Law of Demand states that consumers will purchase more goods and services at lower prices and less goods and services at higher prices.

- ***Changes in Demand***: Over a certain time period, if the price of a good remains constant, yet consumers purchase more or less of a good, then there has been a change in demand.

- ***Supply***: If producers produce goods for stores, there is said to be a supply of goods. The Law of Supply states that producers will provide more goods and services at higher prices and fewer goods and services at lower prices.

- ***Changes in Supply***: Over a period of time, if the price of a good remains constant and producers still provide more or less of the good for sale, then there has been a change in supply.

- ***Advertising***: Store owners advertise to provide information to consumers. Owners hope to increase the demand for their products.

- ***Competition***: Stores producing and selling similar goods are in competition with one another. In a very real sense, stores compete with other stores and not with consumers. Likewise, consumers compete with other consumers to buy scarce goods and services.

- ***Profit***: Total revenues received from the sale of goods minus the explicit costs of operating the store (wages, rent, wholesale cost of goods, etc.) equals the accounting profit. When implicit costs, such as the value of alternative uses of the store owner's time and financial capital, are also subtracted, this equals economic profit. (For an example, see profit entry under student businesses.)

- ***Taxes***: Sales taxes are paid to the government by store owners. However, owners do not bear the full burden of the sales tax, since the tax is at least partially passed on to consumers.

- ***Market Price***: This price equalizes the amount of a good that consumers want to buy and the amount producers want to sell. A market price is always determined by the forces of supply and demand.

- ***Shortage and Surplus***: If the price of a good is set below the actual market price, then there will be a shortage of the good. Raising the price will eliminate the shortage. If the price of a good is set above the market price, there will be a surplus. Owners can eliminate the surplus by lowering the price. Chronic shortages and surpluses are caused by government imposition of price controls.

☞ **Auctions:** Many economic concepts taught using a classroom store also can be taught using an auction. The mechanics of the auction process, however, allows teachers to emphasize several important concepts.

- ***Law of Demand***: The auction process provides an excellent illustration of the Law of Demand. At a low price, many students will bid for a certain item. As the price rises, fewer students will bid for the item.

- ***Supply and Demand***: An auction makes it easy for students to see how supply and demand interact to determine market price. They can also see how the magnitude of supply or demand influences price. For example, items that are highly valued by students

and also limited in supply (i.e., items that are relatively very scarce), will command high prices. If more of these items are supplied in the auction, then the price will fall.

✏ ***Market Price*:** In an auction, the price paid for an item *is* the market price, since the auctioneer will keep raising the bids until the item is sold. In a store, this process happens less quickly, and the price set by store owners for an item may initially be below or above a true market price. (See "Market Price" entry under Stores.)

✏ ***Competition Among Consumers*:** The bidding process in an auction illustrates clearly how, in a market economy, consumers compete against other consumers to determine who will obtain scarce goods and services.

✏ ***Consumer Preference and Ability to Pay*:** An auction shows clearly that (1) different individuals value certain products more than others, and that (2) income (ability to pay) affects product price and how many products individuals will consume.

✏ ***Inflation:*** As more money is injected into the mini-economy, students will believe that they are wealthier. However, if the number of items sold at the auction remains constant, students will soon realize that their real wealth has not increased. An increase in money is not an increase in wealth.

☞ **Student Businesses:** In many mini-economies, students operate their own classroom businesses. (See the student businesses section in Chapters 3 and 4.) This is particularly valuable because it may be the first opportunity for students to engage in economic activity as a producer . Some of the many concepts students can learn by operating businesses are discussed below.

✏ ***Entrepreneurs:*** Students who take risks to produce and sell goods and services are entrepreneurs. The goal of the entrepreneur is to make a profit.

✏ ***Productive Resources:*** The classroom space (land) and raw materials (which come from natural resources), workers (human resources), and tools (capital resources) are the productive resources that businesses use to produce goods and services.

- ***Scarcity:*** Productive resources needed to produce goods and services are limited. They are scarce and must be purchased by producers. Thus, the goods and services produced with these resources are also scarce. This scarcity is reflected by the price of the goods and services in the marketplace.

- ***Choice:*** Because productive resources are scarce, students must choose (1) what goods or service to produce, and (2) which productive resources to use in production. A student who decides to produce bookmarks must decide whether to hire artists (human resources) to create bookmarks by hand or design and produce the bookmarks using a computer (capital resource).

- ***Opportunity Cost:*** Productive resources used to produce one good or service cannot simultaneously be used to produce another. The opportunity cost of producing a good or service is the most valuable alternative good or service that now *cannot* be produced.

- ***Price:*** Price is the allocation mechanism used to distribute scarce productive resources among competing producers. Student businesses use productive resources only if they can afford to purchase them. For example, if businesses must pay rent to use the extra desks or tables in the classroom, only those businesses who can afford to pay the rent can use them. The supply and demand for desks and tables determines the market price.

  Price is also the signal that tells businesses what to produce. If the price of a certain good rises relative to other goods, it is a signal that consumers want more of that good produced. To earn more profits, businesses will use their scarce productive resources to produce more of that particular good.

- ***Interdependence:*** Producers depend on households and other producers to provide capital goods and other productive resources. Retail businesses that sell goods depend on producers to supply them with those goods. Greater specialization always leads to greater interdependence.

- ***Supply:*** Student businesses supply goods and services to the classroom market. Businesses will supply more goods and services at higher prices than at lower prices. Supply can change. If new or existing businesses produce more of a good *at prevailing prices*, this is an increase in supply. If businesses produce less at prevailing prices, this is a decrease in supply.

- ***Demand:*** Student consumers demand goods and services produced by classroom businesses. Consumers buy more at lower prices than at higher prices (Law of Demand). If students buy less *at prevailing prices*, this is a decrease in demand. If they buy more at prevailing prices, this is an increase in demand. When business advertise, they attempt to increase demand.

- ***Profit:*** The amount remaining after subtracting all business costs from sales revenues is profit. Students should consider the value of forsaken alternatives when computing profits. A student who earns $50 a week operating a business, but who *could* earn $75 a week as the class AV technician, in a very real sense has not earned a profit. Economists would say the student earned an *accounting* profit of $50, but an *economic* profit of *minus* $25!

  It is important for students to realize that profits are the incentive for businesses to continue or expand production. Profits are "signals" that reveal what consumers are demanding.

MINI ECONOMY
FLEA MARKET APPLICATION

Name(s): Heather & Krystal

Company Name: MC. Cookie Hut

Number of tables requested ($5.00 per table): 1 ✓ 2 Pd.

Description of items to be sold: cookies + punch

Flea Market Date: 5-26-95 Time: 2:00

Binding Lease Contract
(Please read and sign)

I promise to be responsible for the set-up of my booth, personal attending of my booth and clean-up of my booth. I also understand that the management is not responsible for articles and money which are lost, damaged or stolen.

Heather MCGaffey (Student Applicant Signature) Sandy Hewitt (Teacher Authorization Signature)

- ***Competition:*** Student businesses which sell similar goods and services compete with one another. Competition pressures businesses to lower production costs and product prices, and to increase product quality.

- ***Monopoly:*** A student business that is the sole producer of a good or service is a monopoly. Monopolies are not guaranteed to make a profit. They still must provide goods and services that consumers want at a price that covers production costs.

- ***Investment:*** Students who start businesses must invest income that could be spent at the class store or auction to acquire productive resources necessary to operate their businesses. In doing so, *present* consumption is sacrificed in hopes of greater *future* income. Real businesses acquire investment funds from three sources: (1) business

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earnings (profits), (2) borrowing, and (3) stock issues. Both borrowing and stock issues depend on savings provided by households, which must limit their own consumption.

- ***Risk:*** Because businesses must cover production costs, students can never be certain that their businesses will succeed. There is an element of risk in every business venture.

- ***Productivity:*** By adopting new technology or lowering costs in some other way, businesses become more productive. For example, a student letter-writing service may decide to use a word processor instead of writing letters by hand.

- ***Human Capital:*** Students who have mastered the skills necessary to produce a certain good or service have acquired human capital. Human capital increases worker productivity. Skilled, productive workers are more scarce than unskilled workers and, therefore, earn higher wages.

- ***Types of Business Ownership:*** There are three types of business organization: sole proprietorship, partnership, and corporation. A crucial difference between a corporation and the other two forms of business organization is the corporation's limited liability. In a lawsuit, corporate stockholders are liable only to the extent of their individual investments in the business. Sole proprietors and partners are fully liable and could lose personal assets.

☞ **Government and Taxes:** Every economy, including the mini-economy, requires some form of government. In some mini-economies, the teacher is the "government." In other classes, students form their own government, electing representatives to carry out government functions. Some of the many concepts concerning economics and government are described below.

- ***Government vs. Private Services:*** Certain services can be provided by governments or private businesses. In the mini-economy students must decide how to provide these services. For example, will classroom postal services and trash collection be performed by salaried government workers or by student businesses?

- ***Taxes:*** Taxes levied in a mini-economy will reduce students' spendable income. Using tax revenues to support actual classroom government services lets students see the direct link between taxes and the services they provide. Governments ultimately can provide services only through taxation.[1]

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[1] If governments borrow to finance spending, they must pay with future tax revenues. If governments print money to finance spending, individuals are taxed through higher prices for goods and services (Inflation).

✏ ***Scarcity, Opportunity Cost, and Choice:*** Governments must decide how to spend scarce tax revenues. Money used to provide one service cannot be used to provide another. Every government spending decision has an opportunity cost.

✏ ***Tax Rates:*** Multiplying the tax base by the tax rate determines total tax revenues. A tax *rate* that is larger for higher incomes than for lower incomes is call progressive. If rates are higher for lower incomes, then the tax is regressive. A tax rate that is the same, regardless of income, is proportional.

✏ ***Deductions:*** Some teacher allow certain deductions on their students' income tax forms. The deductions usually parallel deductions allowed by the IRS. For example, students may receive a standard deduction or may deduct contributions to a class field trip fund or classroom charity.

✏ ***Functions of Government:*** Students can learn about the various functions of government in a market economy discussed in Chapter 2. For example, a classroom government can:

- establish rules (legal framework) to govern economic activity in the classroom.
- ensure that the classroom business environment remains competitive.
- provide certain services (postal, police, legal system, etc.).
- control spillover effects, such as excessive noise and trash on the floor ("pollution").
- establish some kind of a welfare system.

☞ **Banks:** Almost every mini-economy has some kind of bank. In some cases, the teacher operates the class bank, hiring students as employees. In other classes, students own and operate their own private banks. In either case, banking activities provide many opportunities to learn economic concepts.

✏ ***Savings:*** After-tax income not spent on consumption is called saving.

✏ ***Banks:*** Banks are businesses that channel savings from savers to borrowers within the financial capital market. In this role as a middleman, a bank earns a profit by charging higher rates of interest on loans than it pays for savings.

✏ ***Interest:*** To compensate savers for depositing funds in the bank (thereby forgoing present consumption), banks pay savers interest. Borrowers pay banks interest for the use of funds deposited by savers.

✏ ***Interest Rate:*** Interest rates are determined by the supply and demand for loanable funds (mostly savings) in the financial capital market. Higher interest rates encourage more savings and less borrowing and vice versa.

✏ ***Checking Accounts:*** In the real world and in the mini-economy, checking accounts are actually part of the money supply. Banks now pay interest on both checking and savings accounts.

☞ **Insurance Companies:** Many teachers have insurance companies in their mini-economies. Teachers sometimes operate the class insurance company, but it is even more instructive if students operate their own companies. Some basic insurance concepts and terms are discussed below.

✏ ***Risk:*** Risk is the probability that a given event will occur. In the mini-economy, teachers usually pretend that several unfortunate "accidents" (automobile, household, etc.) regularly occur. If there are three simulated accidents each week in a class of 30 students, the probability (risk) is one out of 10 that a student will have an accident.

✏ ***Insurance:*** Students can purchase insurance to protect themselves from the risk of an "accident." When considering insurance needs, students should take into account their current and future income, potential costs of an accident, the probability that an accident will occur, and the cost of insurance.

✏ ***Insurance Policy:*** This is a written contract explaining the insurance coverage in detail. In a mini-economy policies are usually very simple, but should contain pertinent information, such as the type of insurance, amount of coverage, premiums, deductible, and the policy expiration date.

✏ ***Premium:*** This is the price students must pay to purchase an insurance policy. Premiums may vary as student insurance companies compete to attract customers.

✏ ***Deductible:*** This is the amount the insured student pays before the insurance company begins to make payments towards an insurance claim.

☞ **Real Estate:** Many teachers incorporate real estate into their mini-economies. Students must purchase a desk for their "home" or may rent from other students. Also, students who operate classroom businesses must rent or buy a place to make and sell their goods or services. These mini-economy activities lead naturally to the study of many economic concepts.

✏ ***Rent:*** Students who do not purchase a desk must pay rent to desk owners. Students should understand the difference between renting and owning property.

✏ ***Rent or Buy:*** Students should can compare the advantages and disadvantages of renting or buying real estate. Advantages of renting are more freedom to move, less upkeep, no property taxes, less initial cash outlay, and less financial risk. Advantages of buying include freedom to improve your property, possibility of capital gain, and deductibility of property taxes.

✏ ***Taxes:*** Local governments levy property taxes on real estate to support local schools and other public services. In many mini-economies, there are also real estate taxes. If there is also a classroom income tax, property taxes could be deductible.

✏ ***Government Enforcement of Contracts:*** One essential role of government in the economy is to enforce private contracts. In a mini-economy, the teacher or class government must enforce the details of any rental lease.

✏ ***Mortgage:*** Students purchasing desks may have to secure a mortgage loan from a classroom bank. Students should understand that the bank has title to the property until the mortgage is repaid, and that they must pay interest on the unpaid balance.

✏ ***Real Estate Brokers:*** Brokers are middlemen who provide information and expertise to buyers and sellers of real estate. The services of a broker reduce the transaction costs of buying and selling. For their services, brokers receive a commission. In the mini-economy, it is very helpful for the teacher if all real estate transactions are handled by student brokers.

✏ ***Value of a Capital Asset:*** A rental property is a capital asset that can produce income for its owner. Students learn that the value of a piece of property (desk, table, etc.) depends upon the *future* income the property generates for the owner. A student may have to pay a

high price to purchase a property with a high, though not assured, potential for producing future income. A property with a low potential for producing future income will sell for less.

✏ ***Capital Gains or Loss:*** The gains or losses from the sale of real estate are called capital gains or capital losses.

☞ **Investments:** Investments are a natural for any mini-economy. They are especially effective and interesting because the investment activities are not a pretend matter, since the gains or losses have a direct impact on a student's financial standing in the classroom.

In the mini-economy, students typically invest in *stocks* and *commodities,* following price changes in the newspaper. When students sell, they incur a capital gain or capital loss. Students also can receive dividend payments on stock holdings. Using investments in your mini-economy will provide many opportunities to teach important economic concepts.

✏ ***Stocks:*** Student companies can issue stock to raise financial capital (money). A share of stock represents ownership, or equity, in a company. As owners, stockholders have a voice in the control of a company through voting rights.

✏ ***Commodities:*** A commodity is an economic good such as corn, oil, or gold. Commodities are commonly traded in large quantities on commodity exchanges, such as the Chicago Board of Trade or the Chicago Mercantile Exchange.

Commodity Certificate

Commodity: Wheat

Amount: 50 bushels

Price to Buy $4.27

Price to Sell $3.95

Profit or (Loss) -.24

Owner's Signature Sara Vollmer

Commodity Broker's Signature Jimmy

- ***Stock Market:*** Buyers and sellers of stocks interact in the stock market. The New York and American Stock Exchanges are well known exchanges where many already issued stocks are traded. On these exchanges, buyers and sellers compete in an auction process that determines the final prices of individual stocks. A stock exchange lowers the transaction (trading) costs of buying or selling stocks, letting a buyer in Alaska purchase shares from a seller in Miami in just a few minutes!

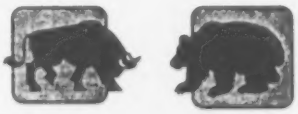
- ***Exchange:*** Students should understand that for every buyer of a stock or commodity there is also a seller. Both buyers and sellers expect to gain from a transaction.

- ***Risk:*** Because the future is uncertain, all investments entail some risk. Students must understand they may lose money with their stock and commodity investments.

- ***Liquidity:*** Students, and investors in general, want to be able to convert their investments into cash as quickly as possible. Investments that are easily converted to cash are referred to as "liquid." Because of large, sophisticated exchanges, stocks and commodities are quite liquid investments.

- ***Dividends:*** If a company earns profits, it may distribute part of them to stockholders as dividends. A company may choose not to give dividends, and instead retain profits for other uses, such as investment in new plant and equipment.

- ***Bull and Bear Market:*** Bull markets are characterized by rising prices, bear markets by falling prices.



- ***Capital Gains and Losses:*** Investors earn capital gains when they sell an investment that has increased in value. They incur capital losses when they sell an investment that has decreased in value. Capital losses can be all or partially deducted against income on federal income tax returns.

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Chapter 6

Making Your Mini-Economy More Effective

Introduction

This chapter addresses questions and concerns that teachers frequently pose about implementing the mini-economy form of instruction. These questions and concerns usually fall under two basic categories. The first category deals with broader educational and instructional issues; the second addresses practical "nuts and bolts" questions about operating a mini-economy.

1. Broader Educational and Instructional Issues

The introduction of any new instructional method or program will raise legitimate questions concerning the broader educational and instructional implications of the program. This section addresses many frequently asked questions about the classroom mini-economy. Responses are based on many years of experience using and observing the mini-economy instructional program.

☞ *QUESTION*: ***"Won't the mini-economy take up too much important instructional time? How can one expect a teacher to fit a mini-economy, including some basic economics instruction, into an already crowded curriculum?"***

✔ *RESPONSE*: There are three basic answers to this question.

1. First, consider your mini-economy to be part of the social studies curriculum, especially since economics is one of the major teaching strands identified in the social studies section of the *Indiana Curriculum Proficiency Guide*. (See Appendix C.)

2. Second, even teachers who do not teach social studies should strongly consider using the mini-economy. A simple, well-planned mini-economy is not very time consuming. It is

true tha several hours a week might be needed for a complex mini-economy. However, by scaling back just a bit, it is possible to have a very effective mini-economy with a modest investment of time. In one particular classroom, mini-economy activities included a bi-weekly auction, insurance companies, real estate, banks, taxes, and investments. Yet, since much of this activity occurred during non-instructional time (as students were arriving, preparing to leave, or enjoying indoor recess), the actual amount of instructional time used was only about an hour a week.

3. The third, and perhaps most compelling reason, is that mini-economy activities give students the opportunity to apply skills being learned in other subject areas. This results in a more integrated curriculum that gives meaning to the many basic skills that students must learn, but seldom have an opportunity to *apply* in realistic situations.

☞ ***QUESTION: "Won't operating a mini-economy mean investing a lot of my own personal time?"***

✔ ***RESPONSE:*** Planning and implementing a mini-economy will require some extra time on your part. However, once the mini-economy is in place and you have gained some experience, it can be managed with minimal effort. This is especially true if you make wise use of paid student workers. *Before undertaking any task, consider whether or not the students could possibly do it*. In most cases they will be able to help. This relieves you of many administrative burdens and gives more responsibility to the students. As one teacher said, "I admit that at first, the mini-economy took some extra time. But now it *saves* me time. My students do all the administrative and classroom tasks. I do what I was trained to do - and that's teach!"

☞ ***QUESTION: "Isn't paying students for desired behavior a form of bribery?"***

✔ ***RESPONSE:*** Some teachers instinctively object to rewarding students for desired behavior. They believe students should not be paid for things they should be doing anyway. Some researchers have argued that rewards are actually counterproductive; that desired behaviors are actually undermined when rewards are removed. Other researchers have countered that this conclusion is unwarranted, since much of the research has been poor or has been conducted in unrealistic, narrowly defined settings.[1] Many teachers concur, finding that in their classrooms paying students has been an effective tool for classroom management.

Teachers who object to rewarding student behavior should simply avoid using the mini-economy

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[1] For a detailed analysis of this difficult and controversial topic see "Reward-Induced Decrements and Increments in Intrinsic Motivation," by Mark Morgan in *The Review of Educational Research*, Spring, 1984, Vol. 54, No 1.

as a classroom management tool and simply pay students for classroom jobs. Students can also earn money by operating classroom businesses. This thorny issue doesn't have to be a stumbling block.

☞ ***QUESTION:*** ***"I plan to use the mini-economy partly as a classroom management tool. Should I use fines or simply reward students for positive behavior?"***

✔ ***RESPONSE:*** It is probably best to emphasize the positive. It is all too easy for classroom discipline to focus exclusively on what students should *not* do. The value of rewarding positive behavior (keeping desks and lockers clean, walking quietly in the halls, etc.) is that it encourages students to do what they *should* do.

On the other hand, teachers who fine students have indicated that it can be a very effective technique, as long as it is not overemphasized. One teacher levies fines for running in the halls (speeding!), overdue library books, littering the floor, disorderly conduct, lost checkbooks, overdrawn bank accounts, etc. She feels these fines reflect fines received in the real world.

☞ ***QUESTION:*** ***"Does the mini-economy work for all types of students?"***

✔ ***RESPONSE:*** Students of all ability levels function well within a mini-economy. They respond enthusiastically to the practical, true-to-life activities. However, if you reward students for certain behaviors, it is important to include behaviors that *all* students can manage. Also, if

you reward students for academic excellence, also consider rewards for academic *improvement.* This gives students of all ability levels the opportunity to succeed. Students who are not academically oriented often thrive in the mini-economy. They exhibit good business savvy and respond enthusiastically to opportunities to form businesses, trade, and earn money in various "non-academic" ways.

☞ ***QUESTION: "How strictly should I control ways in which students earn money?"***

✔ ***RESPONSE:*** Exercise as little control as possible. Some students will devise creative ways to earn income. Others will imitate these enterprises, resulting in healthy competition, decision-making opportunities, and the creative backdrop for teaching important economic concepts. For example, one student discovered he could rent his hand held video game to his classmates during recess. Another student, whose mother worked at a local bank, sold small desk calendars used for bank advertising to his classmates for a handsome profit.

You must use some discretion, however. Students should not be allowed to pawn family heirlooms or liquidate valuable stamp or coin collections in order to get ahead in the mini-economy. Fortunately, these situations do not arise very often, and you can give your students a significant amount of freedom to earn money.

☞ ***QUESTION: "Will implementing the mini-economy require special training?"***

✔ ***RESPONSE:*** Some teachers seem to have a special knack for mini-economies and hasten to implement their own without much direction. Others are more cautious and need help and encouragement. In either case, it is motivating and helpful to observe another mini-economy in action. This generates ideas and brings home the fact that a mini-economy *can* actually work. The Indiana Department of Education keeps a database of teachers who welcome visitors to observe their mini-economies in action.

Of course, it is important to mention that all teachers who implement a mini-economy will benefit from some specialized training in basic economics. This training will greatly improve your ability to use mini-economy activities to teach basic economic concepts.

Each summer, the Indiana Council for Economic Education (ICEE) offers tuition free, graduate credit workshops for teachers at universities throughout Indiana. For specific workshop information contact the ICEE at 1310 Krannert Center, Purdue University, West Lafayette, IN 47907, at 317-494-8545.

☞ ***QUESTION: "Will parents criticize the mini-economy?"***

✔ ***RESPONSE:*** Parents are very supportive of teachers who implement mini-economies, and are understandably impressed with the knowledge their children gain of economics, business, and financial matters. Parents are also quite pleased with the renewed interest their children show in school. Below are representative parent comments.

> This (mini-economy) system has been a big help in Jerry's understanding the value of money. He respects his money and he is more thrifty.
>
> Elisa had no idea about money. She's learned it costs money to do and buy almost everything; plus your study in gold and silver helped her realize that prices go up *and* down. Both Shawn and Elisa participated in the mini-economy and were highly motivated. They had more knowledge of current markets and inflation and seemed cautious when making purchases. 'Sales' became a household word. There was bargain shopping for Christmas and birthdays etc. We both feel that the system was not only of benefit in the classroom, but was of much importance at home. We thank you.

☞ ***QUESTION: "Can I count on administrative support?"***

✔ ***RESPONSE:*** There are three reasons why administrators support the mini-economy:

1. The first is the enthusiasm and interest generated on the part of all concerned: teachers, students, parents, and members of the local community.

2. The second reason is that the mini-economy encourages students to apply skills learned in various subject areas. There is much legitimate concern about providing students with realistic and practical instruction.

3. The third reason is the positive publicity the mini-economy generates for schools, especially at a time when they frequently are targets of criticism. A well-organized mini-economy often attracts the attention of the local media, who are usually on the lookout for interesting human interest or educational stories.

2. Practical "Nuts and Bolts" Issues

Teachers usually have other practical, "nuts and bolts" kinds of questions about operating a mini-economy. This section addresses these questions, and provides many suggestions for making the mini-economy run more smoothly.

☞ Checking Accounts

"My students keep overdrawing their checking accounts."

- ✓ Use checking account forms (Appendix A) that require students to compute checking balances *on* the form.
- ✓ Take away the checking privileges of violators.
- ✓ Charge hefty fees for overdrawn checks.
- ✓ Levy other punishments (miss next store auction, garnish wages until overdraft is paid, etc.).
- ✓ Give a monthly bonus to students who do *not* overdraw accounts. (Be sure that student bankers do this administrative task.)

"There are always discrepancies between the official bank statements and the students' own check book. It takes me forever to figure out who is at fault."

- ✓ Use checking or savings account forms (Appendix A) requiring students to compute *on the form*.
- ✓ Hire a student accountant to determine who made the mistake. Require the student who was at fault to pay any accounting fees.
- ✓ Require student bankers to balance statements more often, perhaps every two or three weeks.
- ✓ Have several bankers, each responsible for fewer clients. Also, make bankers responsible for the *same* clients each week.
- ✓ Use the *Mini-Economy Banking Program* software. Then you will be sure that the bankers are not making any math errors!

☞ Auctions and Stores

"My stores and auctions are so confusing that they take up a lot of class time."

- ✓ Make good use of student helpers to collect money, take orders, issue items, etc.
- ✓ Use specific auction forms to organize the auction process. (Appendix A)
- ✓ Establish rules to define acceptable behavior and to establish an orderly auction process.
- ✓ Limit stores or auctions to a specific time period, regardless of what gets sold. Students will learn to use this scarce time wisely.
- ✓ Have store or auction time during rainy day recesses when students must stay in anyway.

"I never seem to have enough items to sell . I'm always running around trying to find things."

- ✓ Have your *students* bring one to three items from home to sell. Get parental permission!
- ✓ Get items from your colleagues. They have all kinds of "treasures" in their classroom closets.

- ✓ Sell more classroom *privileges* and fewer items.
- ✓ Don't hold auctions or stores too frequently. For upper elementary students, every other week is sufficient. Some teachers have even longer periods of time between auctions.
- ✓ In a class store, don't have items priced too low! Get a general idea of how much money your average student has and price items accordingly. If you set prices below a market clearing price, you will be sold out in no time. Remember the Law of Demand - to sell less, simply raise prices.
- ✓ Local businesses will often contribute items.
- ✓ You can find many inexpensive items at garage sales.
- ✓ Don't forget; students will buy just about *anything*, even seemingly useless items.

"My students are hoarding so much money that I'm running out. I'm also afraid these students will buy everything in future stores and auctions."

- ✓ Issue some higher denomination bills. Have your hoarders trade in lower denomination bills for the new ones.
- ✓ Require hoarders to deposit some of their money into the bank.
- ✓ Discover items and privileges hoarders really like and sell these things at the next store or auction. You can usually tempt your hoarders into buying something.
- ✓ Use an auction instead of a store to sell the special items that hoarders want. Students will frequently bid up prices to levels that will absorb much of the hoarded money.
- ✓ Don't worry if several students have amassed fortunes that enable them to dominate a particular auction or store session. That is their reward for being diligent enough to earn money and disciplined enough to save it.

☞ Implementing Your Mini-Economy

"There are just too many details for me to handle. I'm getting bogged down."

- ✓ It is very important that you delegate as much responsibility as possible to students. This may be difficult at first, but it is essential for survival in the mini-economy. It's also good for your students.
- ✓ Don't expand your mini-economy too quickly. Add mini-economy activities only after you and your students have mastered previous activities.
- ✓ Think of ways to simplify certain procedures. Better yet, ask your *students* to think of simpler procedures! For example, pay salaries every week or every other week, instead of daily; or do most mini-activities during one specified time each week.
- ✓ Get another teacher involved. Perhaps she could operate the bank, and you could operate the store or auction. In other words, practice some division of labor.
- ✓ Ask a parent or teacher's aide to help.

"My mini-economy activities are using too much instructional time."

- ✓ Do most mini-economy activities during times that are typically not very productive,

such as when buses are coming and going, during indoor recess, or late Friday afternoon.

- ✓ Don't forget that mini-economy/economics activities are part of the social studies curriculum. They should be considered part of your instructional time.
- ✓ Remember that students will be applying many math, communication, language arts, and fine arts skills while participating in mini-economy activities.

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✓ Set time limits for certain mini-economy activities. For example, limit auctions to 25 minutes. (Using a timer helps.) Students will learn not to waste scarce mini-economy time.

"My students keep bringing expensive toys and food items to trade or sell in their classroom businesses."

✓ Make a rule not allowing students to bring expensive things. Set a specific monetary limit for these items or for any raw materials used to produce a product.
✓ Have students pay you mini-economy money for materials and items brought from home. Students will become aware of the costs associated with operating a business.
✓ Encourage students to operate businesses that involve *labor* and *talent*, with minimal investments in expensive raw materials. This also encourages creativity.

"My students are losing interest in the mini-economy. It's just not what it used to be."

✓ Make sure students truly value the items and privileges offered in your store or auction.
✓ Limit your mini-economy to a specific period of time, such as 6-8 weeks.
✓ Let students apply for new jobs, or raise the pay of existing jobs.
✓ Add a new mini-economy activity, such as real estate or insurance, that is especially interesting to students.
✓ Begin giving your students bills (rent, water, electric, doctor, etc.) that students *must* pay each month. This can increase interest in a hurry!
✓ Invite guest speakers to share their work experiences and discuss other economic topics.
✓ Go on a field trip that relates to your mini-economy activities (factory tour, etc.).
✓ Let your students start their own classroom businesses. Initially, this will take some planning and coordination, but it is well worth it. Students enjoy running their own businesses.

☞ Behavior Management

"My students aren't responding to money incentives anymore. They don't seem to care."

✓ Don't use the mini-economy for behavior management at all. Students can earn money from jobs or from running their own businesses.
✓ Make sure your money rewards are large enough.
✓ Make sure that your students really value what they can earn at stores or auctions.
✓ Keep your behavior management goals attainable, especially for lower ability students. For example, instead of paying students if *all* assignments are completed on time, consider giving rewards for *each* completed assignment. Even students who turn in only a few assignments will earn something and will be encouraged to improve even more.
✓ In some situations, fines can be more effective than rewards, but they must be used carefully. Students with a heavy load of fines will become discouraged and will lose

interest in earning money. Let these students "erase the slate clean" by missing recess, staying after school, etc. Giving them a chance to start over again can be very motivating.

☞ Stealing

"Stealing continues to be a problem in my mini-economy."

- ✓ Set high standards for honesty in your classroom; an atmosphere of suspicion encourages stealing. Encourage and *expect* students to return any money found on the floor. Reward honesty with praise or small monetary rewards. In other words, cultivate a climate of trust.
- ✓ Require play money to be kept in an envelope or wallet.
- ✓ Require students to keep money in the class bank.
- ✓ Have stiff and immediate penalties for stealing.
- ✓ Choose honest, responsible, and competent students for bankers.
- ✓ Don't use currency at all. Use only checks in your mini-economy.

☞ Administrators and Parents

"My administrators are questioning my mini-economy activities."

- ✓ Keep the lines of communication open with administrators. Do they *really* know what you are doing in your mini-economy? Are you reporting positive feedback that you receive from parents?
- ✓ Be prepared to explain why mini-economy activities are educationally sound (Chapter 1). Identify the educational goals and objectives of your mini-economy. Post them in your room.
- ✓ Make sure you use mini-economy activities to apply skills in other subject areas.
- ✓ Invite administrators to visit your classroom to view mini-economy activities first hand.
- ✓ Let administrators know you are using your mini-economy to teach the economic concepts identified in the social studies section of the *Indiana Curriculum Proficiency Guide*.
- ✓ Be enthusiastic and positive about your mini-economy. Most administrators appreciate an enthusiastic teacher.

"Some of the parents are concerned about my mini-economy activities."

- ✓ Communicate with parents. Let them know about your mini-economy activities. Explain why the mini-economy is an educationally sound teaching method.
- ✓ Design your mini-economy so that any student who puts forth reasonable effort will succeed.
- ✓ If you use your mini-economy as a class management tool, be prepared to justify this decision to parents.
- ✓ Invite parents to visit the classroom and help with some mini-economy activities. Let parents share their work experiences with the class.
- ✓ Remind parents that economics is an integral part of the social studies curriculum.

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Chapter 7

Using the Mini-Economy in the Middle School

Introduction

Implementing the mini-economy in the middle school or junior high can pose special challenges, especially in departmentalized settings, where teachers usually see a particular group of students only once a day. This need not deter middle school teachers from implementing the mini-economy, however, since it can work well in a middle school setting.

Because of the specialized nature of much middle school instruction, it is usually social studies teachers who implement mini-economies. However, math, science, and language arts teachers also find the mini-economy to be an excellent instructional methodology for their classrooms.

Recently, it has become more common for *teams* of teachers within a building to implement the mini-economy program. In a team situation, the social studies teacher is primarily responsible for economics instruction. However, other teachers on the team also use the mini-economy to improve classroom discipline, motivate students to improve their grades, apply relevant concepts in their own subject areas, as well as reinforce certain economic concepts.

Implementing the Mini-Economy in the Social Studies Classroom

This section is based on the mini-economy developed by Howard Gluff, a social studies teacher at Northside Middle School in Muncie, Indiana. Mr. Gluff has implemented the mini-economy in his classroom for many years. Teachers can model and modify what Mr. Gluff has done as they adapt the program to their own schools and classroom settings. Keep in mind that Mr. Gluff used the original mini-economy publications from the Indiana Department of Education to design his mini-economy. Therefore, teachers will also want to draw upon much of the information presented in previous chapters of this publication.

There are two distinct phases to Mr. Gluff's mini-economy. In Phase I, the classroom is organized as a command economy, with Mr. Gluff playing the role of the reigning "dictator." In Phase II, the mini-economy becomes more market-oriented, with students making many more production and consumption decisions. In both phases, although Mr. Gluff's primary goal is to help his students master basic economic concepts, he also uses his mini-economy as a classroom management tool.

In both the command and the market phases, students assume the following economic roles, although the nature of those roles vary in each phase:

- ***Producers:*** Students generate information/work via class assignments and discussions, perform classroom jobs, and operate classroom businesses.

- ***Consumers:*** Students consume supplies, food, utilities, room space, and professional teaching services.

- ***Savers:*** Students decide how much of their classroom income to save for future purchases.

- ***Tax Payers:*** Students pay taxes to cover the physical plant, supplies, and professional services provided to them.

- ***Investors***: Students increase their own *human capital* by acquiring new skills and knowledge. Students also invest in classroom businesses.

☞ **Phase I - Command Economy:** In this phase of the mini-economy, which typically lasts nine weeks, students are given very little economic freedom. Mr. Gluff has absolute control over what is produced and how students will earn money. The purpose of this is twofold. First, it allows the teacher to implement the mini-economy at a comfortable pace. Second, it gives students a first hand understanding of how economic decisions are made in command economy - one quite different than the economic system in which the students live. Mr. Gluff then relates his command mini-economy to the economies of ancient civilizations and/or contemporary command economies that are studied in the regular curriculum. (He also recommends using the *Return to Mocha* video to teach the differences between a command and market economy. It is available through he Indiana Council for Economic Education, 317-494-8545).

✏ ***Parent Letter:*** At any grade level, it is wise to inform parents about the mini-economy and your rationale for using it. Figure 1 contains the letter Mr. Gluff uses, which you can use or adapt to your own particular situation.

Figure 1

Sample Letter to Parents

Dear Parents:

In an attempt to motivate students to reach their full potential, I have decided to implement a Mini-Economy in my social studies classes. The Mini-Economy is designed to provide much needed instruction in basic economics, decision-making, and living skills; and it does so in a dynamic and motivating way that encourages creative thinking and problem solving.

Furthermore, each student will be involved in activities that will reinforce math and English skills. The Mini-Economy experience should provide students with the skills that they will need to function as consumers and citizens in today's complex society. You will find a format of the Mini-Economy program attached to this letter. In addition, I have provided each student with materials that further explain the program.

Sincerely,

✏ ***How Students Earn Money:*** In the command mini-economy, each student works for the state. Students earn money in two primary ways: classroom performance and performing public service jobs assigned by the teacher.

- ✓ Classroom Performance: Students are paid for completing assignments, doing extra credit, taking part in class discussions, excelling in school work, etc. In Mr. Gluff's class, he pays students for getting good grades on key assignments. Students also receive pay based on their grades for the nine week period.

- ✓ Public Service Jobs: The teacher assigns various public service jobs by row or group. Examples include picking up trash, straightening books, cleaning boards and erasers, and performing any other work assigned by the dictator. Students are usually paid for this work, but oppressive dictators sometimes require citizens to work "for the good of the state!" Students perform their public service jobs on certain days of the week.

✏ ***Costs Incurred by the Students:*** These are some of the costs your students may have to pay to survive in their mini-economy. You may think of other ideas.

✓ Living Expenses: As consumers, students pay for utilities, rent, and services of the teacher. Whether or not desks can be owned by students is the prerogative of the dictator.

✓ Taxes: Students also pay taxes to cover the teacher's salary. Taxes are usually assessed at a flat rate.

✓ Fines: Students who violate classroom rules pay fines, determined, of course, by the dictator.

✏ ***What Can Students Purchase With Their Remaining Income?*** Not much! In the command phase students mainly earn grades and work for the good of the state. However, benevolent dictators may let students purchase a few special privileges or "necessary" consumer goods from time to time at the "state store." No decadent, luxury purchases allowed!

At this point in your mini-economy, you could choose to have a flea market, calling it an "ancient market place." This illustrates that even in economies controlled primarily by the king or dictator, there is still plenty of local market activity.

☞ **Phase II: - Market Economy:** In this phase of the mini-economy, students are given much more economic freedom. You can use this phase to teach students about democratic capitalism and its tremendous impact on contemporary world history.

✏ ***Parent Letter:*** At this time you should send another letter home describing the changes in your mini-economy. This keeps parents interested in classroom activities and provides an excellent opportunity for worthwhile parent/student communication.

Figure 2

Sample Job Descriptions

Titles	Duties	Qualifications	Weekly Salary
Tax Assessor	Assess and collect income tax and maintain records as directed by teacher	Good math and English skills, GPA - 3.0	$250
Utilities Manager	Collect and record payment of all utilities	Good math and English skills, GPA - 3.0	$250
Real Estate Broker	Collect and record payment of all rent for desks	Good math and English skills, GPA - 3.0	$250
Assistant to the Teacher	Take attendance, keep records, and do any other duties assigned by teacher	Good math and English skills, GPA - 3.5	$500
Accountant	Responsible for all records of salaries, fines, and any other money transactions	Superior math and English skills, GPA - 3.5	$500
Personnel Director	Review job applications, interview applicants, supervise all employees	Good math, English, leader-ship, and communication skills, GPA 3.5	$500
Tutor	Tutors students in various subject areas	Good math, English, social studies, and science grades, GPA - 3.0	Negotiable with client
Custodian	Inspect and clean floor at the end of class	Good work habits and responsible attitude	$100
Desk Monitor	Inspect and straighten desks at the end of each period	Responsible attitude and good work habits	$100

Figure 3

Outline for a Job Application Letter

Basic Requirements:

- Write your letter in business letter form.
- Consult your English book for details.
- Your letter must contain four paragraphs (details below).

1. ***Truth Statement*** - Tell the truth about your role in social studies class.

   Examples:

   a. Attendance record (how many tardies?)
   b. Asking/answering questions in class
   c. Not talking or disrupting class
   d. Effort on tests or quizzes
   e. Completion of homework
   f. Do you bring supplies needed for class?
   g. Do you follow all the class rules?
   h. Do you pay attention and take good notes?
   I. Is your work neat and organized?

   Mention which of the above you do well. If you need to improve in some areas and are willing to put forth the effort, tell me. Remember, this is the truth paragraph.

2. ***Qualifications*** - Carefully explain why you want the job and why you are qualified for it.

3. ***Future Plans*** - Describe your future plans. Explain how this social studies class and the Mini-Economy experience will benefit you in the future.

4. ***Summary*** - Briefly summarize the positive points from paragraphs 1-3, and restate why you should be considered for the job.

✏ ***How Students Earn Money:*** Students still earn money for academic work and doing jobs in this new phase of the mini-economy; however, they are given much more freedom. Students can apply for the jobs they want and can also operate their own businesses.

- ✓ Classroom Performance: Students can still earn money by excelling or improving in their studies.
- ✓ Jobs: The teacher posts various job descriptions, and students apply for the jobs on a competitive basis. Students submit job applications, listing their skills and qualifications. References and job interviews may be required. (See *Figure 2*, Job Descriptions and *Figure 3*, Outline for a Job Application Letter.)
- ✓ Classroom Businesses: Students may open classroom businesses, which typically operate during passing time or during specified business times. The types of businesses students can operate are listed and discussed in Chapters 3 and 4.
- ✓ Daily Attendance: A small reward is given for daily attendance.

✏ ***Costs Incurred By the Students:*** Students still incur the same costs described in Phase I. However, students have the freedom to "own" their desks without having to rent from the state. There are also costs associated with operating their own businesses.

✏ ***Final Auction:*** At the end of the school year Mr. Gluff holds a large auction. Students can purchase class privileges or many items collected by the teacher or donated by local businesses.

You could also conduct a large flea market at this time, which would also give students the chance to spend all of their money.

☞ **Handling Mini-Economy Administrative Details:** In the middle school setting, it is crucial that students handle most of the administrative details of running a mini-economy. Mr. Gluff's students run the mini-economy virtually on their own, relieving him of much administrative work.

It is helpful setting aside one day each month to handle certain mini-economy details, such as paying taxes and bills, handling major banking transactions, etc.

☞ **Teaching Economic Content:** It is not always necessary to have a formal economics lesson to teach specific concepts identified in your curriculum. Instead, you can address these economics concepts informally as they arise naturally within your mini-economy. (See Chapter 5.) Of course, there will be times when you *will* want to conduct a formal lesson using the excellent economic education materials that are available.

For information about these materials, contact the Indiana Council for Economic Education at the address below. Your local Junior Achievement office also has business/economic education programs for middle school students.

The Indiana Council for Economic Education
1310 Krannert Center
Purdue University
West Lafayette, IN 47907
317-494-8545

Implementing the Mini-Economy in Other Subject Areas

This section identifies how non-social studies teachers can use the mini-economy in their middle school classroom to reinforce their own subject area content. The information is based on the mini-economy experiences of Howard Gluff's colleagues at Northside Middle School: Laretta Shumate (Language Arts), Kim Batt (Mathematics), and Ed Choate (Science). All four teachers worked together as a team to implement the mini-economy program.

☞ Mathematics:

The mini-economy is a natural for math classes. Listed below are various mini-economy activities and the math concepts that can be taught using the activities. By being involved in a mini-economy, students learn to apply math skills to "real life" situations.

- ✓ Calculate income and keep income record accounts (basic algorithms).
- ✓ Figure income tax payments (basic algorithms, percents).
- ✓ Compute currency exchange rates of the different currencies of several mini-economy classrooms (basic algorithms, ratios, proportions, lowest terms).
- ✓ Keep Budgets (basic algorithms, percents, decimals, word problems).
- ✓ Conduct stock market activities (fractions, mixed numbers, basic algorithms).
- ✓ Conduct store transactions (mental arithmetic, estimating, making change).
- ✓ Engage in banking transactions (basic algorithms, estimating).

☞ Language Arts:

The language arts teacher will have no difficulty relating mini-economy activities to many language arts concepts and activities. Below are just a few examples:

- ✓ Submit job application forms (spelling, grammar, punctuation).
- ✓ Write job application letters (business letters, paragraph construction, grammar, spelling, punctuation, main idea).
- ✓ Write/conduct advertisements (grammar, punctuation, public speaking, vocabulary).
- ✓ Write essays on mini-economy themes (e.g., "Why Our Group Decided to Start a Mini-Economy Business" or "The Benefit of a Family Budget").
- ✓ Relate the many economic themes found in literature to mini-economy activities.

☞ Science:

Science teachers will also be able to integrate some economics instruction into their courses by means of the mini-economy.

- ✓ **Applied vs. Pure Science** - students will learn this distinction and learn how scientific research must be translated into marketable ideas in order to have an impact in the economy.
- ✓ **Funding of Scientific Research** - students learn that government funding comes from tax revenues and that the level of funding may affect research when they go to college.
- ✓ **Trade-offs** - students learn about practical trade-offs in everyday scientific endeavors in fields such as mining, energy, waste disposal, and forestry.
- ✓ **Environmental Issues** - students learn that economic considerations play a major role when dealing with pollution and many other environmental issues such as waste disposal, animal extinction, wilderness set aside programs, recycling, solid waste management, etc.
- ✓ **Cost/Benefit Considerations** - in environmental issues and in other important areas, scientists and decision makers must weigh economic costs and benefits when making important decisions.
- ✓ **Energy Policy** - public policymakers and private companies must consider many economic issues when deciding whether to fund research and development of renewable and nonrenewable energy sources.

☞ Summary

The main thing middle school teachers need to remember is to be creative and don't try to do too much all at once. Use the mini-economy as a tool to motivate your students and to interest them in classroom activities. Give your students responsibility. Don't attempt to do many of the administrative details; it isn't necessary and you will become discouraged.

Finally, as you grow more and more confident in using the mini-economy, you will find it easier to use it to integrate your curriculum. This is especially true if you work in a team setting. The mini-economy activities will add realism and will serve as a springboard for written assignments and class discussions.

Appendix A

Reproducible Mini-Economy Aids

Sample Letter to Parents

Dear Parents:

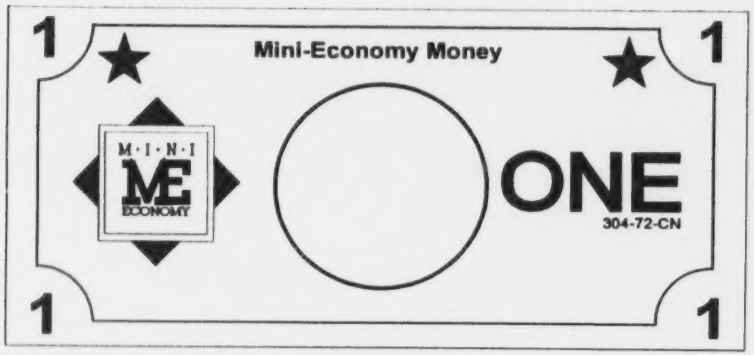
Our class will soon implement a mini-economy - a classroom money system that will help your son or daughter learn the economics concepts outlined in our social studies curriculum. The mini-economy also provides these other useful functions:

- ✓ *It helps with classroom management*
- ✓ *It helps students apply skills learned in other subjects*
- ✓ *It helps students learn how to manage money*

The mini-economy program is endorsed by the Indiana Department of Education, and is widely used by teachers throughout Indiana and in other states as well. All students will have a classroom job that they will be expected to perform. They will be paid in classroom currency for this job, and can spend the money in a class store or auction - after they have paid their bills! As the mini-economy progresses our classroom may have banks, insurance companies, real estate transactions, and student businesses.

I am confident that your students will enjoy our classroom mini-economy and benefit greatly from it. You are always welcome to come to our classroom to observe our mini-economy and, if you wish, to share about your own specific work. Please call if you have any questions.

Sincerely,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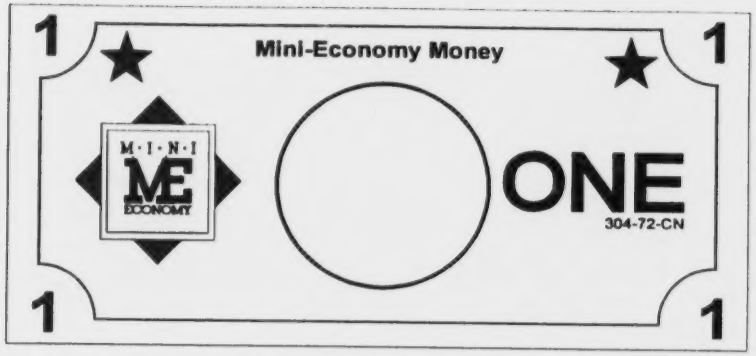
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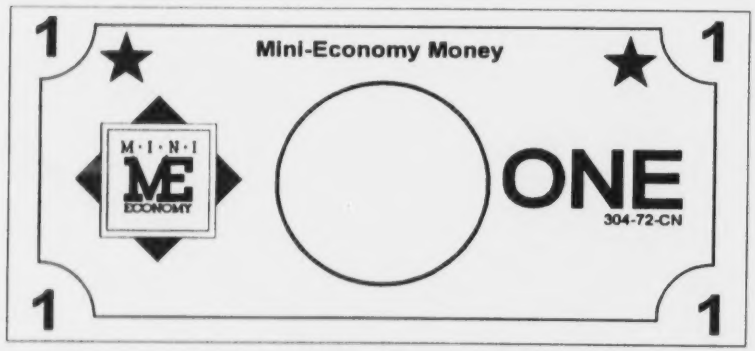
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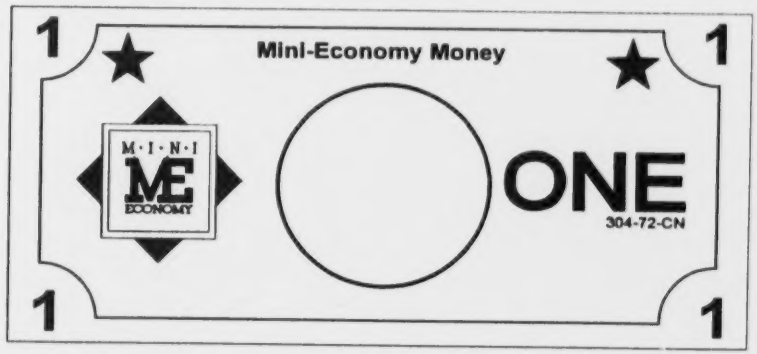
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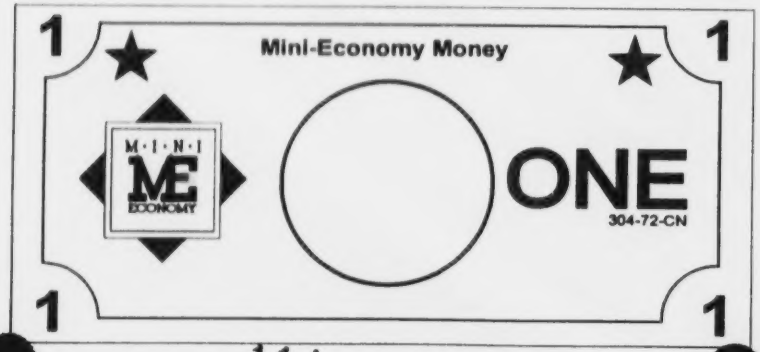
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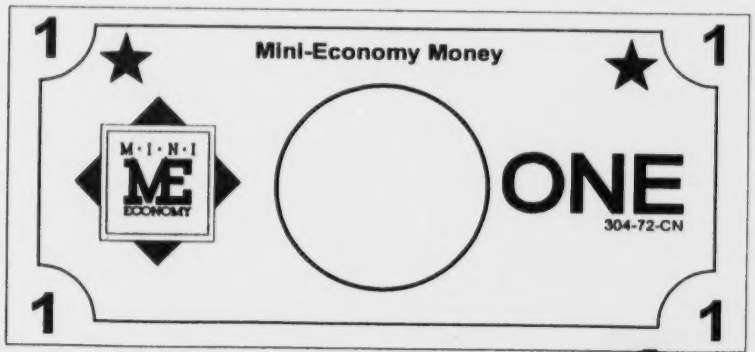
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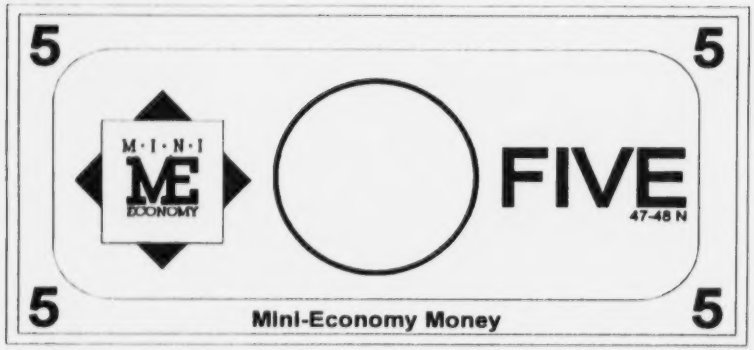
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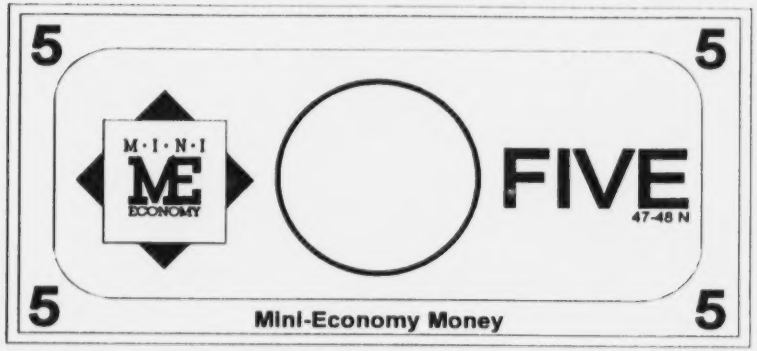
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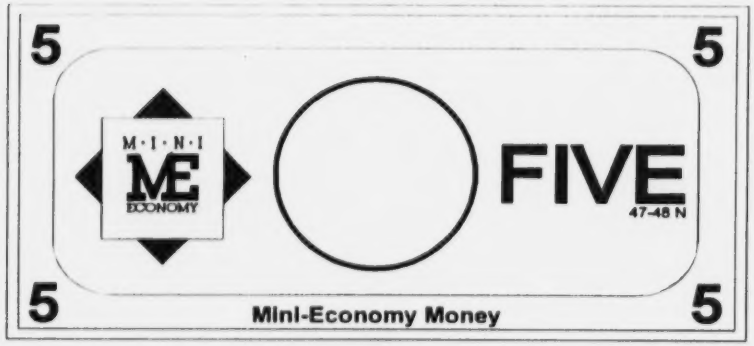
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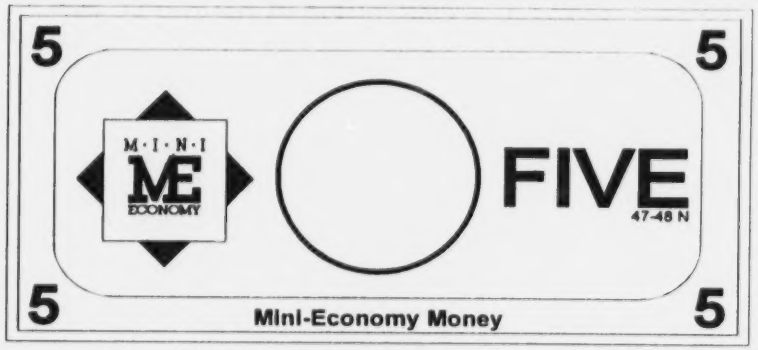
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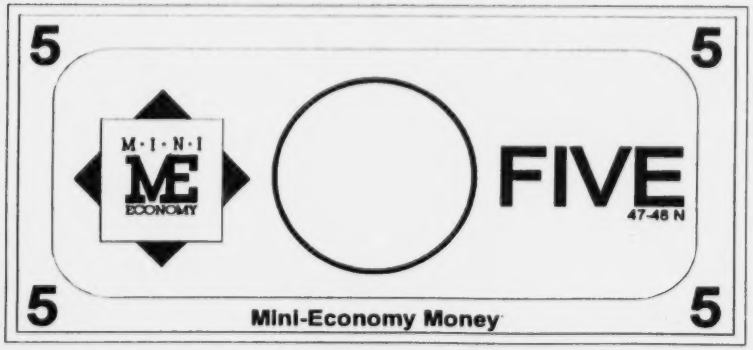
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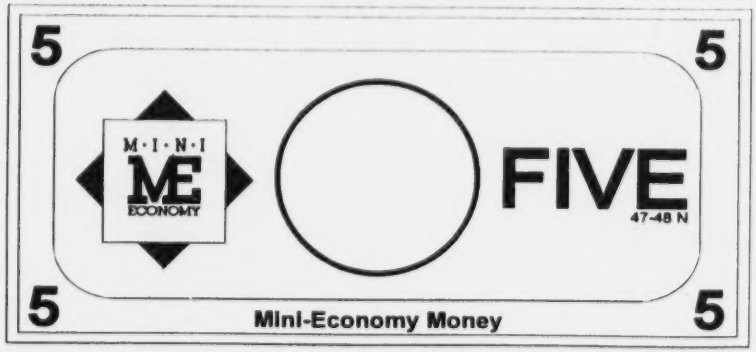
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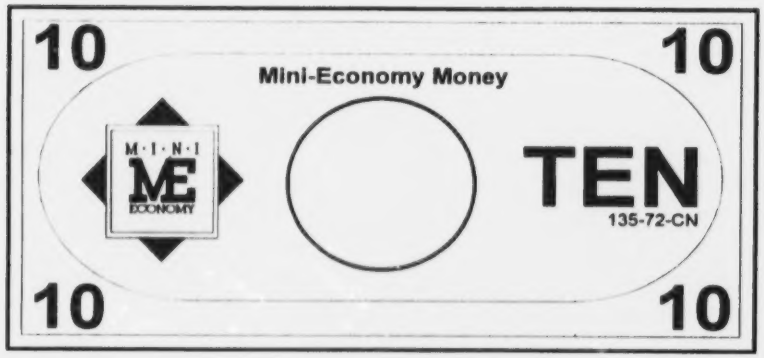
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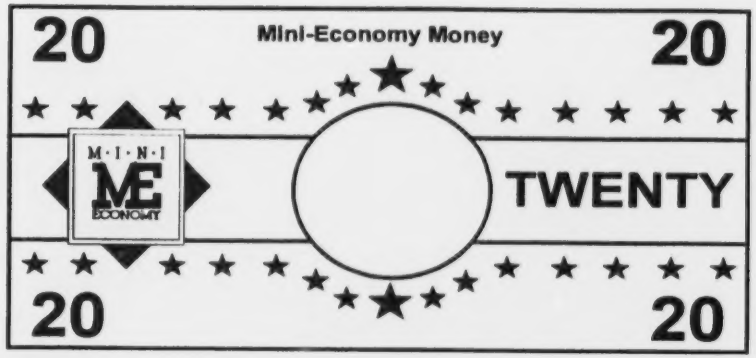
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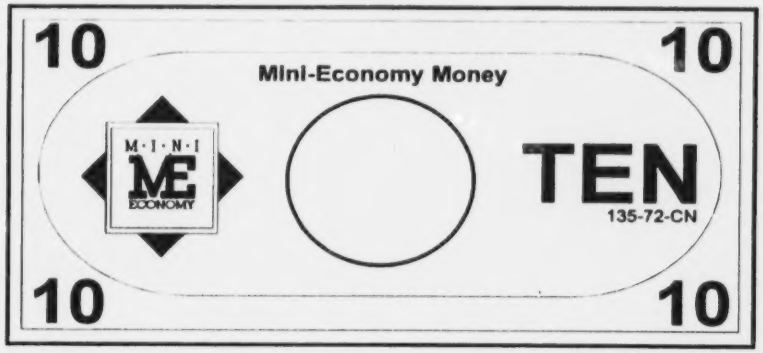
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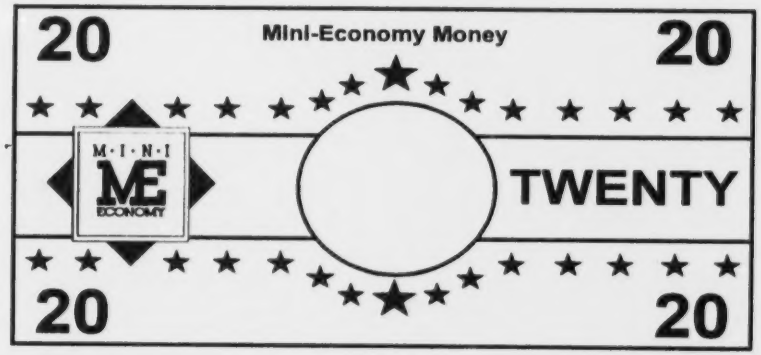
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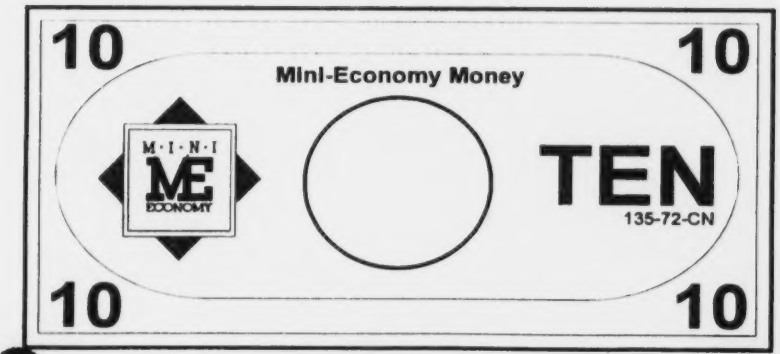
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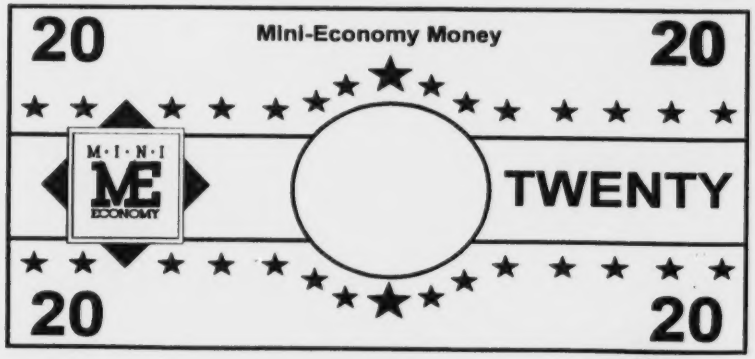
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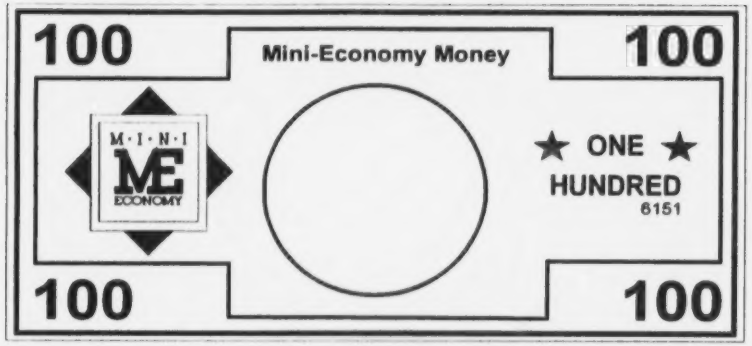
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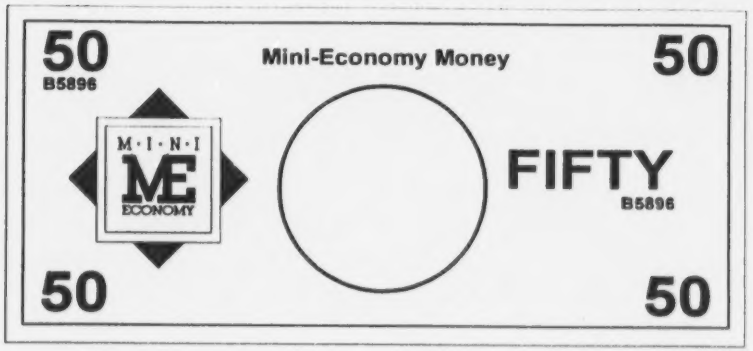
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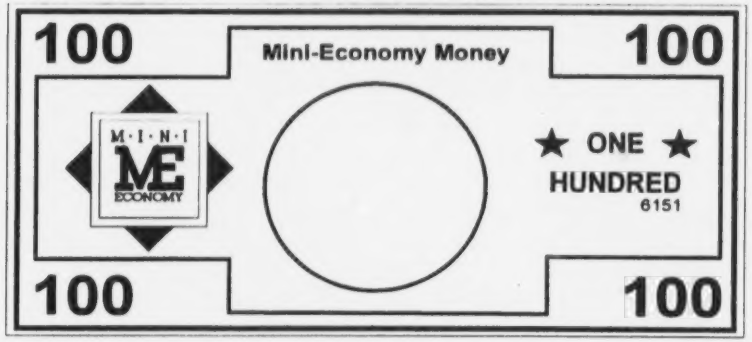
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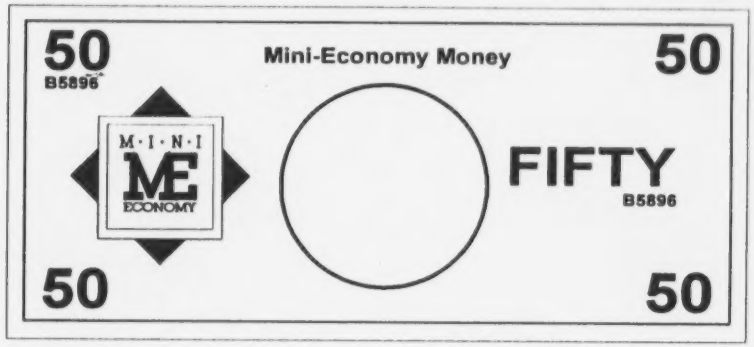
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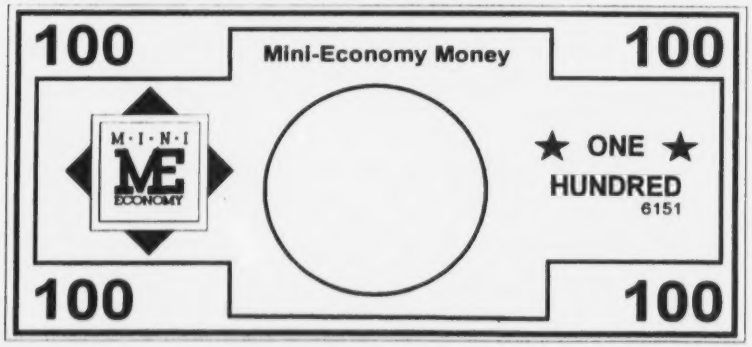
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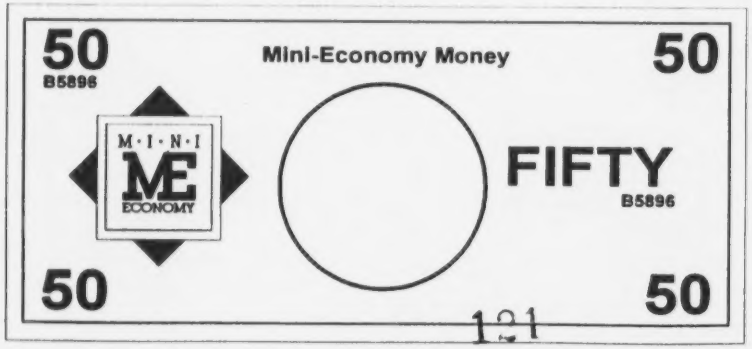
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Mini-Economy Checks

No. _____

Date _____

Pay to the order of _____ $_____

_____ DOLLARS

For _____ _____

Authorized Signature

Mini-Economy Checks

No. _____

Date _____

Pay to the order of _____ $_____

_____ DOLLARS

For _____ _____

Authorized Signature

Mini-Economy Checks

No. _____

Date _____

Pay to the order of _____ $_____

_____ DOLLARS

For _____ _____

Authorized Signature

Mini-Economy Checks

No. _____

Date _____

Pay to the order of _____ $_____

_____ DOLLARS

For _____ _____

Authorized Signature

Savings Account Record

Name _____

Account Number _____

Date	Deposit (+)	Withdrawal (-)	Balance	Initial

Checking Account Record

Name _____

Account Number _____

Check Number	Date	Description of Check or Deposit	Amount of Deposit (+)	Amount of Check (-)	Balance	Initial

Deposit Slip Date_____

Deposit in my (checking/savings) account $_____

Bank Teller's Initials _____

Signature _____

Deposit Slip Date_____

Deposit in my (checking/savings) account $_____

Bank Teller's Initials _____

Signature _____

Deposit Slip Date_____

Deposit in my (checking/savings) account $_____

Bank Teller's Initials _____

Signature _____

Deposit Slip Date_____

Deposit in my (checking/savings) account $_____

Bank Teller's Initials _____

Signature _____

Deposit Slip Date_____

Deposit in my (checking/savings) account $_____

Bank Teller's Initials _____

Signature _____

Deposit Slip Date_____

Deposit in my (checking/savings) account $_____

Bank Teller's Initials _____

Signature _____

Withdrawal Slip Date_____

Withdrawal from my (checking/savings) account $_____

Bank Teller's Initials _____

Signature _____

Withdrawal Slip Date_____

Withdrawal from my (checking/savings) account $_____

Bank Teller's Initials _____

Signature _____

Withdrawal Slip Date_____

Withdrawal from my (checking/savings) account $_____

Bank Teller's Initials _____

Signature _____

Withdrawal Slip Date_____

Withdrawal from my (checking/savings) account $_____

Bank Teller's Initials _____

Signature _____

Withdrawal Slip Date_____

Withdrawal from my (checking/savings) account $_____

Bank Teller's Initials _____

Signature _____

Withdrawal Slip Date_____

Withdrawal from my (checking/savings) account $_____

Bank Teller's Initials _____

Signature _____

Job Description

Job Title: _____

Job Duties: _____

_____

_____

_____

_____

_____

_____

Personal Qualifications Necessary _____

_____

_____

_____

_____

_____

_____

Workers must be responsible and must do the job properly, or risk being fired.

Workers who want to quit must give at least two (2) days written notice.

Job Application Form

Job Title:_____ Date: _____

Name: _____

Salary/Wage: _____

Previous Jobs Held: _____

_____

What are your qualifications? _____

_____

_____

_____

Why do you want this job?_____

_____

_____

_____

_____

_____

Signature _____

Employment Application

Date: _____

Name in Full: _____

Present Address: _____

_____ Phone: _____

For What Position Do You Wish to Apply?

_____

What Experience or Qualities Do You Have That Would Assist You In Your Job Performance?

_____

_____

_____

Education — Elementary School

Name of School	Grades	Years

When are you available for employment? _____

Are you presently employed? _____ Yes _____ No

If yes, where? _____

Do you belong to any organizations? (Please List)

_____

References: Give at least two. Attach any letters of reference.

Name	Address	Phone	Position

Auction Slip

Date _____

Item Purchased _____

Person _____

Price _____

Auctioneer's Initials _____

Auction Slip

Date _____

Item Purchased _____

Person _____

Price _____

Auctioneer's Initials _____

Auction Slip

Date _____

Item Purchased _____

Person _____

Price _____

Auctioneer's Initials _____

Auction Slip

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Item Purchased _____

Person _____

Price _____

Auctioneer's Initials _____

Auction Slip

Date _____

Item Purchased _____

Person _____

Price _____

Auctioneer's Initials _____

Soda Ticket

Holder may drink a soda in class.

Computer Pass

Good for free time on the computer.

Homework Pass

Holder may miss one homework assignment.

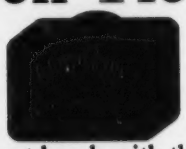
Library Pass

Good for free time in the library.

Office Ticket

Holder may work in the school office.

Lunch Ticket



Holder may eat lunch with the teacher.

Recess Pass

Good for extra recess time.

Desk Ticket

Holder may move desk anywhere in the room for one day.

Income Record Sheet

Name_____ **Month**_____

Week 1

Mon.				
Tues.				
Wed.				
Thurs.				
Fri.				

Week 2

Mon.				
Tues.				
Wed.				
Thurs.				
Fri.				

Week 3

Mon.				
Tues.				
Wed.				
Thurs.				
Fri.				

Week 4

Mon.				
Tues.				
Wed.				
Thurs.				
Fri.				

Total Week 1 _____ Total Week 2 _____
Total Week 3 _____ Total Week 4 _____ **Total for Month** _____

Income Tax Form

Name _____ **Date** _____

Income:	Total from Income Record Sheet	1. _____
	Interest Income	2. _____
	Other Income	3. _____
	TOTAL INCOME	_____ (Add lines 1-3)
Deductions:	Standard Deduction	4. _____
	Other Deductions	5. _____
	TOTAL DEDUCTIONS	_____ (Add lines 4-5)

TOTAL INCOME - TOTAL DEDUCTIONS = *NET INCOME*

_____ - _____ = _____

To Compute Tax:

NET INCOME X TAX RATE = TAX

_____ X _____ = _____

Taxpayer's Signature _____

House Title

The last person listed below is hereby the owner of house # _____

Each time the house is sold, the new owner must register his or her name on this title form. This may require a fee payable to the title recorder.

Date	Signature of Owner	Signature of Title Recorder

Insurance Policy

Type of Policy _____ Date _____

Coverage: Covers all costs minus deductibles.

Deductible: _____ Expires: _____

Insurance Agency: _____

Agent's Initials: _____

Other Terms of the Policy: _____

Buyer's Signature _____

Rental Contract

Date _____

I promise to rent house number _____ from _____ for at least _____ weeks, beginning on the above date. I will pay a rent of _____ per week.

Other terms of the contract:

Signature of Renter _____

Business Profit and Loss Statement

Name _____ **Date** _____

Business _____

Total Sales Revenues _____

Costs:

Materials/Supplies _____

Labor/Wages _____

Advertising/Marketing _____

Interest _____

Depreciation _____

Rent _____

Other _____

Total Costs _____

To Compute Profit or Loss

Total Sales Revenues _____

- Total Costs _____

Profit or Loss _____

Stock Certificate

Company Name: _____

Number of Shares: _____

Price per share — Buy _____

Price per share — Sell _____

Profit or Loss _____

Owner's Signature _____

Stockbroker's Signature _____

Commodity Certificate

Commodity: _____

Amount: _____

Price to Buy _____

Price to Sell _____

Profit or Loss _____

Owner's Signature _____

Commodity Broker's Signature _____

Appendix B

Student Worksheets

The following student worksheets cover many of the concepts introduced in this booklet. Some of the simpler worksheets can be used with primary students, while more complicated worksheets are more appropriate for older students. Answers for selected questions are located at the end of the Appendix.

Goods or Services?

1. In the blanks below put **G** if the item is a **GOOD** and put **S** if the item is a **SERVICE**.

_____	haircut	_____	book
_____	pear	_____	paper cup
_____	mowing lawns	_____	teaching students
_____	chair	_____	painting house
_____	washing car	_____	car
_____	fixing TVs	_____	boat
_____	pencil	_____	typing letters
_____	shirt	_____	playground ball
_____	cleaning teeth	_____	rake
_____	shining shoes	_____	raking leaves

2. Explain the difference between a **GOOD** and a **SERVICE**.

_____

_____

_____

_____

3. How do we *get* **GOODS** and **SERVICES**?

_____

_____

_____

Natural, Human, and Capital Resources

(Productive Resources)

---

1. Put a red circle around the **productive resources** below that represent **NATURAL RESOURCES**. Put a blue circle around **HUMAN RESOURCES**. Put a green circle around the **CAPITAL RESOURCES**.

Teaching Students	***Gold***	***Oil***
	Water	
Chalkboard	***Fish***	***Factory Building***
Truck	***Tree***	***Telephone***
Pencil	***Moving Furniture***	***Soil***
Mowing Grass	***Hammer***	

2. List some of the **productive resources** you would need to produce a *house*. Put a red, blue, or green circle around the type of productive resource, as you did above.

3. Under the types of **productive resources** below, list some of the productive resources you would need to produce a *dentist's services*.

Natural Resources	Human Resources	Capital Resources

Which Things Are Scarce?

Background Information: In economics, a good or service is considered **SCARCE** if there is not enough for everyone to have all that they want - at a price of *zero!* With this definition, almost everything is scarce. It is difficult finding things that are truly free.

1. Circle the things below that, in economics, are considered **scarce**.

Hamburgers	***Gold Ring***	***Bed***	***Sunshine***
Pencil	***Air You Are Breathing***		
Teaching	***Saltwater At The Beach***		***Oak Tree***
Air Under Water		***Chocolate Cake***	
Shirt	***Water Services***		***A Nurses's***
Sand In The Desert		***TV Repair Services***	

2. Anything that has a *price* is considered scarce. In fact, it is the price that determines who gets to have the scarce thing. As you might expect, *the higher the price, the more scarce something is*. Of the scarce items you circled above, put a *red* line under the item you think is the <u>most</u> scarce. Put a *green* line under the thing you think is the <u>least</u> scarce.

3. Can something be valuable and yet *not* be "scarce?" Explain and give an example. (Hint: Examine the items in the box above!)

_____

_____

_____

Choices Have Costs

When you make a choice, the most valuable alternative you do *not* choose is your **OPPORTUNITY COST**. There is an opportunity cost to every economic decision.

1. You have just received $10 for a birthday present. You decide to buy either a soccer ball, a large box of candy, or a teddy bear. Put a 1 under the good you will buy. Put a 2 under your second choice, and a 3 under your third choice.

_____ _____ _____

2. What is the **opportunity cost** of your decision? _____

3. Suppose your friend has the same first choice as you. Does this mean his or her opportunity cost is the same as yours? Why or why not?

_____

_____

_____

4. Betsy has 1 hour until bedtime. She can read a book, play a game, or bake a cake. She decides to play a game. Her second choice is to read a book, and her third choice is to bake a cake.

What is the **opportunity cost** of her decision?_____

Can Betsy's opportunity cost be reading the book *and* baking a cake? Why or why not? _____

_____

_____

Producers Have Opportunity Costs, Too

Producers also incur **opportunity costs** when they make decisions. When producers choose to use their scarce productive resources to produce a certain good or service, they give up the opportunity to produce another. Every producer decision has an opportunity cost.

1. What is the difference between a **producer** and a **consumer**?

_____

_____

_____

2. Define **opportunity cost**.

_____

_____

3. Mr. Lindsay owns a pizza restaurant. List **three decisions** that he must make as a pizza producer.

_____

_____

_____

4. What is the opportunity cost of each decision?
   a. Last year Farmer Smith planted 40 acres of tomatoes and 40 acres of carrots on his 80 eighty farm. This year he decides to plant 60 acres of tomatoes and 20 acres of carrots.
   b. Suzanne was offered two jobs this summer - 1. working as a playground supervisor for the city or 2. full time baby sitting for her neighbor. She chooses the supervisor job.
   c. Andy must decide what good or service to produce when he finishes high school. He wants to be either a mechanic or an electrician. He decides to be an electrician.
   d. Mrs. Sanders owns a vacant building in her town. She wants to open either a craft shop, a donut shop, or an insurance agency. She decides to open the donut shop. Her second choice was the insurance agency, and her third choice was the craft shop.

5. On the back, draw a picture showing a producer making a choice between two production alternatives. Identify the choice made and the opportunity cost. Write a short paragraph explaining the decision and the opportunity cost.

Who Provides the Service?

1. Use a red crayon to circle services provided by the **GOVERNMENT**. Use a green crayon to circle services provided by **PRIVATE BUSINESSES**.

TV Repair	***Police Protection***	***Taxi Service***
Street Lights	***Library***	
Water Service	***Car Wash***	***Army and Navy***
Garbage Collection	***Court System***	***Firefighter***

2. Where does the government get the money to provide services?

_____

_____

3. Underline two services above which are provided by government *and* by private businesses.

4. What are some of the different types of **taxes** that governments collect?

_____

_____

5. Interview your parents, relatives, or neighbors about their work. Find out: (1) If they produce a *good or service* and (2) Whether they work for a *government* or a *private business*. With the help of your teacher, use the data gathered from all your classmates to make charts or graphs illustrating your interview results.

Services - Public or Private?

People want many kinds of services. Governments collect taxes to provide some services. Private businesses also provide many services. Some services are provided by both governments and private businesses.

1. **Directions:** Put an X in <u>one</u> of the three blanks to show how each service is typically provided.

	Government	*Private Business*	*<u>Both</u> Government and Private Business*
a. Fire Protection	_____	_____	_____
b. TV Repair	_____	_____	_____
c. Snow Removal	_____	_____	_____
d. 1st Class Mail	_____	_____	_____
e. National Defense	_____	_____	_____
f. Education	_____	_____	_____
g. Haircuts	_____	_____	_____
h. Lawn Mowing	_____	_____	_____
i. Mailing Packages	_____	_____	_____
j. Police Protection	_____	_____	_____
k. Garbage Collection	_____	_____	_____
l. Street Cleaning	_____	_____	_____

2. Why is **national defense** something that <u>cannot</u> be provided very well by private business?

_____

_____

_____

3. Which government service do you think is most important? Why?

_____

_____

Who Benefits From Trade?

1. Put a **T** if the sentence is true. Put an **F** if it is false.

_____ a. Each voluntary trade has a winner and a loser.

_____ b. To trade, each person must want what the other person has.

_____ c. Both people benefit from a voluntary trade.

_____ d. "Barter" is another word for trade.

2. In each situation, circle who benefits from the trade.

a. Sammy trades his used skateboard to Marty for a used basketball	Sammy	Marty	Both Sammy and Marty
b. In the cafeteria Anne trades two cookies to Maria for her chocolate milk.	Anne	Maria	Both Anne and Maria
c. Tim trades 5 baseball cards to Tom for a large candy bar.	Tim	Tom	Both Tim and Tom

3. Countries also trade with each other. Examine the labels of different articles of clothing in your classroom. In the blanks below, list 5 articles of clothing and the countries where they were produced. List clothing made in 5 different countries.

Clothing	***Country***
_____	_____
_____	_____
_____	_____
_____	_____
_____	_____

4. When you or someone else bought the clothing items listed above, explain who benefitted from this "trade." (Use the back of this worksheet.)

Money

Most of the following items have been used as money at some time in history. Some items have worked better than others. Ideally, money should have four characteristics. It should be **scarce, durable, divisible,** and **portable**. Discuss what these mean.

1. Put a plus (+) in the blank if an item fits one of the characteristics of money very well. Put a zero (**0**) if the item fits somewhat. Put a minus (-) if it does not fit very well at all. The first one has been done for you.

Characteristics

	SCARCE	**DURABLE**	**PORTABLE**	**DIVISIBLE**
Shells	0	+	+	-
Gold				
Beads				
Paper				
Tobacco				
Furs				
Silver				
Corn				
Pebbles				

2. Which item above do you think would be **best** for money? _____
   Why? _____

3. Which item above do you think would be **worst** for money? _____
   Why? _____

4. Throughout history, which item do you think has been used **most** for money?
   _____
   Why? _____

Working More Efficiently

Productivity measures how efficiently we use our productive resources to produce goods and services. We can increase productivity by using:

1. ***Better Technology*** (i.e., *improved* capital)	-	**T**
2. ***Education and Training*** (better *human* capital)	-	**E**
3. ***Specialization***	-	**S**

1. How can productivity be increased in the situations below? Put **T**, **E**, or **S** in the blanks to represent the four ways above. NOTE: Some situations have more than one way to increase productivity.
   a. A farmer plants a field with a hoe. _____
   b. Five shoemakers each produce complete pairs of shoes using simple hand tools. _____
   c. A dentist meets patients, makes appointments, cleans teeth, and does fillings. _____
   d. It takes a long time for 5 workers to unload boxes from a truck. _____
   e. Painters paint only 1 house every 2 weeks. _____
   f. College students make many mistakes and take a long time doing difficult math problems using pencil and paper. _____
   g. Workers in a computer repair shop are not fixing many computers each day. _____
   h. In a hamburger restaurant, each worker takes orders, cooks hamburgers, gets drinks, and wipes tables. _____
   i. It takes a long time for mechanics in a repair shop to fix cars. _____
   j. Three boys each have their own lawn business. They use push mowers, rakes, and small weeding tools. _____

2. Sometimes improving technology, such as adding new machines to a production process, results in workers no longer being necessary. Even if it helps increase productivity, do you think business owners should substitute machines for workers? Write a paragraph on the back expressing your view.

Caught in the Spider's Web!

When people specialize in the kind of work they do, they become more productive, but they also depend more and more on each other to provide the goods and services they want. Thus, the more people specialize, the more **INTERDEPENDENT** they become.

1. Draw "spider's web" lines between any of the workers below who must depend on each other to provide goods or services.

Doctor

Police Officer **Plumber**

Farmer

Mail Carrier **Shoe Producer**

Car Producer

2. When people work on an assembly line to produce a good, they also must depend on one another. Below list some of the good points and bad points about producing goods using an assembly line.

Good Points	***Bad Points***
_____	_____
_____	_____
_____	_____

3. On the back create another spider's web of interdependence using different kinds of jobs and workers.

Lemonade Stand

Jerry and Sam want to earn a **PROFIT** by selling lemonade. In the chart below are costs for the ingredients to make one glass of lemonade.

Cost of Ingredients	
Lemon	**.21**
Sugar	**.08**
Paper Cup	**.07**

1. How much do the ingredients cost to make one glass of lemonade?

2. If the boys sell each glass for a price of .60, how much **profit** will they make? What if the price is .70?

3. If they charge .60 and sell 8 glasses, how much profit will they make altogether? If they sell 10 glasses?

4. What is another other important **productive resource** cost that the boys are <u>not</u> considering when computing their profit?

5. What are some **capital resources** that the boys need for their business that they will probably borrow from their families?

The Birdhouse Business

Jeff plans to make and sell birdhouses this summer. Below is the cost of materials for each birdhouse. He knows he can make 10 birdhouses each week, and that he can sell them for $14.00 each.

Wood	$6.75
Paint	.75
Screws	.50

1. What is the **cost** of materials for each birdhouse? _____

2. How much **profit** will he make on the sale of *one* birdhouse? _____

3. How much **profit** will he make each week by selling all 10 birdhouses? _____

Jeff's uncle offers him a summer job mowing 10 lawns a week. Jeff will earn $100 each week for his wages.

4. How much more money would Jeff earn mowing lawns each week instead of making birdhouses? _____

5. Given this new information, is Jeff still making a "profit" by making birdhouses? Why or why not? _____
_____
_____

6. What is Jeff's **opportunity cost** if he chooses to mow lawns? _____
_____

7. What is Jeff's **opportunity cost** if he chooses to make birdhouses? _____
_____

8. If Jeff chooses to make birdhouses, is he making an unwise decision? Why or why not? _____
_____
_____

BEST COPY AVAILABLE

How Many Cookies?

(Demand)

Mrs. Mills' class wants to bake and sell cookies. The students conduct a market survey to determine the **DEMAND** for cookies. The market survey shows how many cookies consumers would buy at various prices.

Price per Cookie	Quantity of Cookies Consumers Would Buy	Revenue from Sales
.50	50	$25.00
.40	200	_____
.30	400	_____
.20	700	_____
.10	900	_____

1. In the blanks above, compute the sales revenue at each price and quantity.

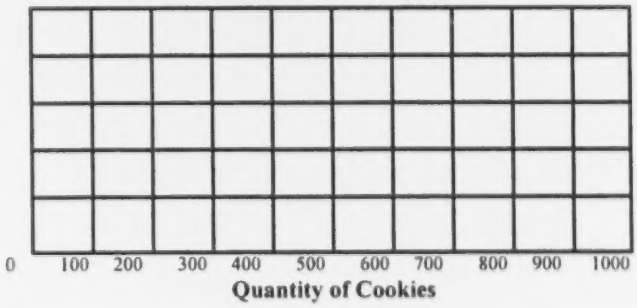
2. If the class wants to sell the *most* cookies, which price above should it charge? _____

3. If the class wants to earn the most *sales revenue*, which price should it charge?_____

4. What price would *you* charge? _____ Why? _____
_____

5. Graph the results of the market survey below. Connect the points.

Demand for Cookies



How Many Cookies?

(Supply)

Mrs. Mills' class is still trying to figure out how many cookies to produce. Their market survey told them about demand, but now they need to analyze their **SUPPLY**. Some students do not want to make many cookies, and will do so only if they are paid higher wages. The class, therefore, would have to charge higher cookie prices to cover any increases in production. The class supply schedule is given below.

Class Supply Schedule

Price per Cookie	Quantity of Cookies Class Would Supply
.50	1000
.40	700
.30	400
.20	250
.10	100

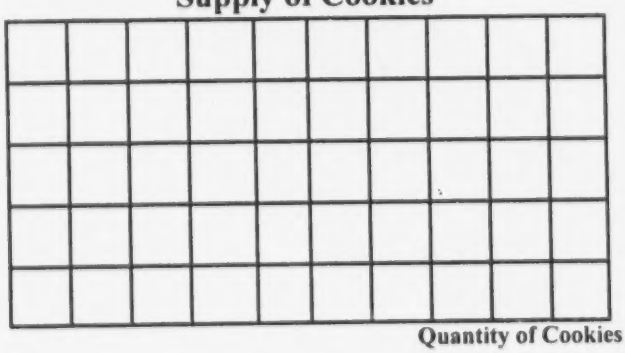
1. At what price would the class supply the *most* cookies? _____ The *least*? _____

2. As the price goes up, what happens to the quantity supplied? _____
   Why? _____

3. As the cookie price goes down, what happens to the quantity supplied? _____
   Why? _____

4. Graph the class supply schedule below. Connect the points.

Supply of Cookies



Quantity of Cookies

How Many Cookies?

(Supply and Demand)

Mrs. Mills' class is finally ready to decide how many cookies to produce. Graph the demand and supply schedules on the graph below.

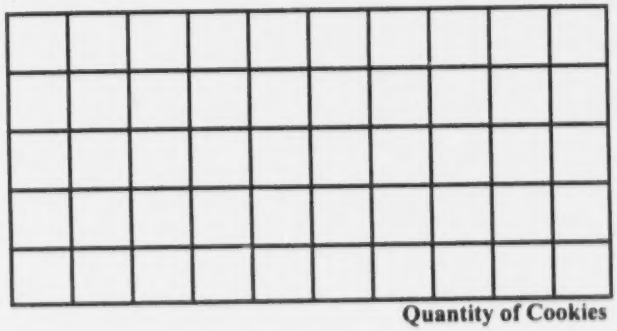
Demand

Price per Cookie	Quantity of Cookies Consumers Would Buy
.50	50
.40	200
.30	400
.20	700
.10	900

Supply

Price per Cookie	Quantity of Cookies Class Would Sell
.50	1000
.40	700
.30	400
.20	250
.10	100

Supply and Demand for Cookies



1. At what price is the quantity consumers would buy and the quantity the class would sell the same? _____

2. The answer in question 1 is called the **market price**. At prices above the market price, why would there be a **surplus** of cookies? (Use the graph to help you.) _____
   _____

3. At prices below the market price, why would there be a **shortage** of cookies? _____
   _____

4. What price would *you* charge? _____ Why? _____

What Would Happen?

(Price Changes)

Different events cause the prices of goods and services to change. In the first blank put an **S** if the event affects the **SUPPLY** of a good, and put a **D** if the event affects the **DEMAND**. Also, in the first blank put an up or down arrow indicating whether the event caused an increase or decrease in the demand or supply. Then, assuming that other things don't change, indicate if the price of the **good** would go up or down.

Good	***Event***	***S or D?***	***Good Price Up or Down?***
1. Corn	Almost no rain falls on U. S. corn crops.	S↘	Up
2. Stuffed Teddy Bears	"Puppy Dogs" become the most popular stuffed toy.	_____	_____
3. Soccer Balls	Many boys and girls are now learning to play soccer.	_____	_____
4. Shoes	Shoe producers must pay higher wages to shoe workers.	_____	_____
5. T-shirts	T-shirt businesses now use machines that produce twice as many shirts in one hour.	_____	_____
6. New Cars	A weak economy causes many people to have lower incomes.	_____	_____
7. Gasoline	The price of crude oil falls.	_____	_____
8. Baby Cribs	There is a large increase in the number of babies born.	_____	_____
9. Tomatoes	Many farmers decide to begin growing tomatoes.	_____	_____
10. Wheat	Wheat farmers must pay more for fertilizer.	_____	_____

Answers for Appendix B Worksheets

The answers for most of the questions on the worksheets in Appendix B are given below. Questions that have very easy or obvious answers are omitted.

Goods or Services: **2**. A good is something tangible; a service is when someone does something for you. **3**. Goods and services must be *produced.*

Natural, Human, and Capital Resources: **1.** Natural - gold, oil, water, fish, tree, soil; Human - teaching students, moving furniture, mowing grass; Capital - chalkboard, factory building, truck, telephone, pencil, hammer **2**. Natural - water, gasoline to run generators, soil; Human - carpenters, bricklayers, etc.; Capital - hammers, saws, generators, trucks, etc. **3**. Natural - water, land, energy source for electricity, etc. Human - dentist, hygienist, receptionist; Capital - building, dentist chair, tools, etc.

Which Things Are Scarce? **1**. The things that are <u>not</u> scarce are sunshine, air you are breathing (However, the air is relatively *clean* and may be *cooled* or *warmed*, you could even consider it scarce, even though there is enough for everyone to have all that they want!), saltwater at the beach, sand in the desert. **2**. The answer is probably gold. Notice that the most <u>valuable</u> thing (e.g., water) is not necessarily the most scarce in an economic sense. This is because in normal situations water is relatively abundant, and its price is, therefore, relatively low in comparison to gold. However, someone stranded in the desert would pay more for water than gold! In this unusual situation, water would be more scarce! **3**. Yes! Sunshine, saltwater in the ocean, air.

Choices Have Costs: **2**. The second choice! **3**. No, their second choice (i.e., their opportunity cost!) may be different. **4**. Read a book; No. Only her <u>second</u> choice is her opportunity cost. Her final choice boils down to a choice between her top two choices.

Producers Have Opportunity Costs, Too **1**. Producers make goods and services; consumers purchase goods and services **2**. The value of your next best alternative when you make a choice **3.** How big a restaurant to rent or buy, how many workers to hire, what kind of menu to have, etc. **4.** a. 20 acres of carrots b. what she would have made as a baby sitter c. the opportunity to be a mechanic d. the insurance agency

Who Provides the Service? **1.** Government - police protection, street lights, library, water service (sometimes!), army and navy, garbage collection (sometimes!) court system, firefighter. Private Business - TV repair, taxi service, water service (sometimes!), car wash, garbage collection (sometimes!) **2.** Taxes! **3.** Water service, garbage collection **4.** Income, sales, property, excise (gasoline, hotel rooms, alcohol, etc.)

Services - Public or Private? **1.** Government - fire protection, 1st class mail, national defense, police protection, street cleaning; Private Business - TV repair, haircuts, lawn mowing; Both -

snow removal, education, mailing packages, garbage collection **2.** Private armies wouldn't work very well. Those who chose not to pay for national defense would still benefit from those who did choose to pay for it. It is, therefore, much more efficient for government to provide for national defense through taxation.

Who Benefits from Trade? **1.** a. F b. T c. T d. T **2.** a. Both b. Both c. Both **4.** When someone buys an article of clothing, both the buyer and the seller benefit. It does not matter where the clothing was made. The buyer is happy to get the clothing; the seller is happy to get the money.

Money **2.** Gold, silver, paper. They all fit the characteristics of money very well. Paper is best, if governments do not print too much of it, causing inflation. Unfortunately this has often been the case. **3.** Pebbles - not very scarce. **4.** Gold and silver. They are scarce and people value them.

Working More Efficiently **1.** Students will identify a variety of ways to improve productivity in each of these situations. **2.** Answers will vary.

Caught in the Spider's Web! **1.** The spider's web lines can be drawn between any of the workers since all must depend on each other in some way. **2.** Good Points - increases efficiency, more production, higher wages, standardized product; Bad Points - often boring, one missing worker stops the whole line, one worker making a mistake affects all the products.

Lemonade Stand **1.** .36 **2.** .24; .34 **3.** $1.92; $2.40 **4.** Value of their time (human resources) **5.** Table, spoon, tablecloth, sign, etc.

The Birdhouse Business **1.** $8 **2.** $6 **3.** $60 **4.** $40 **5.** He is making an accounting profit of $40, but he is not making an economic profit. An accounting profit does not consider the value of opportunities given up; in this case, the lost $100 from *not* working for his uncle! **6.** $60 **7.** $100 **8.** Maybe not, if he really likes making birdhouses and hates mowing lawns. There are other considerations besides money.

How Many Cookies? - Demand **2.** .10 **3.** .20 **4.** Given only this information, probably .20. However, this only looks at the demand side of the issue. You may not have the time or productive resources to produce 700 cookies!

How Many Cookies? - Supply **1.** .50 **2.** It increases. At higher prices, sellers will supply more, since the higher prices cover increases in costs as production rises. **3.** It decreases. Lower prices will not cover production costs; therefore, sellers will reduce the quantity supplied.

How Many Cookies? - Supply and Demand **1.** .30 **2.** The quantity that producers supply is more than the quantity consumers demand. **3.** The quantity producers supply is less than the quantity consumers demand. **4.** .30, since this price balances the quantity supplied and quantity demanded.

What Would Happen? **2.** D↘, Down **3.** D↗, Up **4.** S↘, Up **5.** S↗, Down **6.** D↘, Down **7.** S↗, Down **8.** D↗, Up **9.** S↗, Down **10.** S↘, Up

Appendix C

Indiana Curriculum Proficiency Guidelines in Economics

FOCUS: SELF, FAMILY, FRIENDS, AND SCHOOL	KINDERGARTEN
Proficiency Statement and Indicators **Students should be able to:**	**Sample Student Activities** **Students might:**
ECONOMICS **Explain how people meet basic economic wants and needs.**	
• Identify goods and services that people need and want.	• Using magazine pictures, make a mural or collage of basic needs or goods and services. Label the collage with symbols for food, shelter, clothing, etc.
• Describe how people work to obtain food, shelter, and clothing (goods and services).	• Use play dough to make models of goods or people performing services.
• Describe the economic activities that family members do together.	• Make a pictorial journal of economic activities in which they participate.
• Identify specific jobs that people do.	• Name and discuss different jobs that people do.
• Explain that people earn money (income) by working.	• Play "charades," by acting out the role of individuals earning money by performing various jobs.

FOCUS: SCHOOL AND NEIGHBORHOOD ENVIRONMENTS	GRADE ONE
Proficiency Statements and Indicators **Students should be able to:**	**Sample Student Activities** **Students might:**
ECONOMICS **Explain how people work and use resources to fulfill their economic needs and wants.**	
• Explore how people work to obtain goods and services (food, shelter, clothing, recreation, transportation, etc.).	• Cut out "paper doll" outlines of people and decorate the dolls to correspond to the jobs people do.
• Explore the kinds of work that people do and how that work benefits their family and the community.	• Interview school personnel and family members and make a class book or folder about the work that people do.
• Give examples of how people are producers and consumers.	• Make a chart showing goods and services produced and goods and consumed.
• Give examples of work for which people receive and do not receive income.	• Establish a classroom mini-economy (see Resources Section).
• Identify ways that people spend money and suggest reasons why people save money.	• Invite a bank employee to discuss savings accounts.
• Suggest reasons why it is not possible for people to have all the things that they want (scarcity).	• Cut out ads or catalog pictures of items students might want to buy. Discuss reasons why some choices might be eliminated.

FOCUS: NEIGHBORHOODS AND COMMUNITIES	GRADE TWO
Proficiency Statements and Indicators **Students should be able to:**	**Sample Student Activities** **Students might:**
ECONOMICS **Describe how people depend on each other to supply economic goods and services.**	
• Explain how natural, human, and capital resources are used to produce goods and services.	• Identify the productive resources used to produce specific goods and services.
• Identify people who provide goods and services to the community (e.g., school workers, firefighters, police officers, doctors, factory workers, storekeepers, farmers, homemakers, etc.).	• Participate in a job fair where community members discuss their jobs.
• Explain why people specialize in different jobs.	• Establish a classroom mini-economy (see Resource Section).
• Explain how people earn and use their income.	• Mount pictures from newspapers and magazines showing people earning income in many different ways. Work in small groups, using ad sections from newspapers to categorize ways people might spend money.
• Identify people who are producers, consumers, and both producers and consumers.	• Construct a pictorial graph dividing people into 3 categories: producers, consumers, and both producers and consumers.

FOCUS: NEIGHBORHOODS AND COMMUNITIES	GRADE TWO
Proficiency Statements and Indicators **Students should be able to:**	**Sample Student Activities** **Students might:**
ECONOMICS (continued)	
• Give examples of how scarcity requires people to make choices about using goods, services, and resources. (Since resources, goods, and services are scarce, people must make decisions about what they will buy, or not buy, and what they will produce.)	• Plan a trip or vacation. Work in cooperative groups to agree on and prioritize a limited number of items to take.
• Identify the *opportunity cost* of a choice. (Opportunity cost is the most valuable alternative you have to give up to get something you want).	• Organize a classroom store. Identify the opportunity cost of consumer choices.
• Recognize groups and people who make personal sacrifices for the benefit of others.	• Make awards to present to community and school workers for outstanding service (These could be student-made certificates, badges, buttons, or other gifts).

FOCUS: THE LOCAL COMMUNITY AND COMMUNITIES AROUND THE WORLD	GRADE THREE
Proficiency Statements and Indicators **Student should be able to:**	**Sample Student Activities** **Students might:**
ECONOMICS **Explain how people make choices about using goods, services, and productive resources to satisfy their economic needs and wants.**	
• Describe how people must work in order to provide goods and services in the community.	• Brainstorm a class list of goods and services used since breakfast; list the jobs required to produce or provide each good and service.
• Identify productive resources (natural, human, and capital resources) in the community that are necessary to produce goods and services.	• Design a brochure advertising the natural, human, and capital assets of the community to encourage business and people to locate there.
• Give examples of how economic resources in the home, school, and community are limited (scarcity) and how people must make choices about how to use these resources.	• Ask each student to compile a birthday "wish list" and then to cut the list by a specified amount. Assist in developing a list of classroom resources to be purchased with limited funds.
• Explain why people specialize in different jobs, and how this causes people to engage in trade and to depend on each other (interdependence).	• Survey community members about their jobs, why they chose specific kinds of work, the skills and training needed, and job satisfaction.
• Explain that both parties benefit from voluntary trade.	• Make models of goods out of play dough. Then trade to get the goods they want most.

FOCUS: THE LOCAL COMMUNITY AND COMMUNITIES AROUND THE WORLD	GRADE THREE
Proficiency Statements and Indicators **Student should be able to:**	**Sample Student Activities** **Students might:**
ECONOMICS continued . . .	
• Identify the opportunity cost of various consumer and producer choices (the most valuable alternative you have to give up to get something you want).	• Simulate a city council making choices. List the opportunity costs of various choices.
• Explain how tools and machines (capital) make people more productive.	• Conduct a "math productivity contest," comparing the number of math problems completed with and without calculator.

FOCUS: INDIANA IN THE NATION AND THE WORLD	GRADE FOUR
Proficiency Statements and Indicators **Students should be able to:**	**Sample Student Activities** **Students might:**
ECONOMICS **Compare the characteristics of Indiana's changing economy in the past and present and predict future trends.**	
• Explain how the scarcity of natural, human, and capital resources has affected economic choices in Indiana.	• Construct a pictorial map of different goods and services produced in Indiana.
• Explain how money makes trade (barter) easier.	• Make a chart or a collage showing the different types of money used.
• Explain how goods and services produced in Indiana have changed over time.	• Take a study trip to a museum to examine early Indiana products. Compare with present-day products.
• Give examples of how increases in productivity have affected Indiana business and agriculture.	• In small groups, gather information on Indiana inventors and report on how they affected business and agriculture.
• Compare and contrast manufactured and agricultural products of Indiana with those of states in different regions.	• Make a graph comparing Indiana's products with those of other states. Use the information gathered to set up a "Hoosier Mini-Economy" (see Resource Section).

FOCUS: INDIANA IN THE NATION AND THE WORLD	GRADE FOUR
Proficiency Statements and Indicators **Students should be able to:**	**Sample Student Activities** **Students might:**
ECONOMICS continued . . .	
• Describe the importance of Indiana's products in world trade.	• 1) Take a study trip to an Indiana port. Gather information and make a chart of products shipped from Indiana and products shipped to the state. 2) Construct a map showing major exports from Indiana to world locations; explain why Indiana is among the major exporting states.
• Examine the sources and uses of state tax revenues.	• Make graphs of major sources of state revenues and major categories of spending.
• Describe how business leaders and entrepreneurs have influenced Indiana history.	• Research and report on the lives and work of specific business leaders and entrepreneurs.

FOCUS: THE UNITED STATES	GRADE FIVE
Proficiency Statements and Indicators **Students should be able to:**	**Sample Student Activities** **Students might:**
ECONOMICS **Describe the productive resources and market relationships that influence the way people produce goods and services and earn a living in different parts of the United States.** • Explain how economic decisions are made in a market economy by demonstrating the relationship among economic factors (such as scarcity, choice, opportunity cost, money, goods and services, price, and supply and demand). • Construct a simple circular flow model of a market economy. • Give examples illustrating the economic interdependence of different regions of the United States.	• Prepare a market analysis to create and run student businesses (e.g., desk-cleaning business, plant watering service, recreation managers, chalkboard engineers, photographers, etc.). See the Resource Section. • Use drawings or pictures from magazines to create a bulletin board illustrating the circular flow model of the U. S. economy. • Keep a journal of the food eaten in one day. On a map, locate the regions that produce these foods.

FOCUS: THE UNITED STATES	GRADE FIVE
Proficiency Statements and Indicators **Students should be able to:**	**Sample Student Activities** **Students might:**
ECONOMICS continued	
• Explain how interdependence is a result of specialization and how specialization increases productivity.	• 1) Invite a business person to the classroom to discuss specific busines decisions (e.g., wages, profits, job skills). 2) Chart different types of jobs, the type of education needed and corresponding salaries. 3) Take a field trip to a soft drink, potato chip or other type of factory to observe specialization and productivity factors.
• Identify natural resources and related occupations found in the regions of the United States and speculate why certain careers are more common in one region than in another.	• 1) Make a map of the United States showing resources and related occupations. 2) Identify the various careers and occupations involved in specific products (e.g., breakfast cereal, tennis shoes) and services (e.g., restaurants, healthcare, etc.).
• Trace the development of technology and inventions and analyze their impact on productivity throughout the history of the United States.	• 1) Make a time line of inventions and technological developments. In small groups, discuss how these developments affected productivity. 2) Have an "Invention Convention demonstrating historical and/or student-made inventions. Explain the real or possible impact of each invention.

FOCUS: WESTERN CULTURES	GRADE SIX
Proficiency Statements and Indicators **Student should be able to:**	**Sample Student Activities** **Students might:**
ECONOMICS **Demonstrate the influence of physical and cultural factors upon the economic systems found in countries of the Western World.**	
• Explain how physical geography, specialization, and trade influence the ways people earn income in various countries.	• 1) Plan a family budget for a family of four based on the per capita income of a nation. 2) Develop charts and graphs showing the economic role of women in several countries.
• Explain how increased specialization and trade make countries more wealthy yet more interdependent.	• Choose several common products (e.g., a candy bar, items of clothing, etc.). Identify the ingredients or components. Research and identify locations on a world map where these products originated.
• Explore how different economic systems (traditional, command, market) answer the basic economic questions of what to produce, how to produce, and for whom to produce.	• 1) Write to the embassies of selected countries requesting information. Develop a chart comparing/contrasting standards of living among these countries. 2) Research the type of economic system or systems used in a country over a long period of time. Analyze changes in everyday life as economic systems develop or change (e.g., change from a traditional to a market economy).

FOCUS: WESTERN CULTURES	GRADE SIX
Proficiency Statements and Indicators **Student should be able to:**	**Sample Student Activities** **Students might:**
ECONOMICS continued . . .	
• Describe the level and sources of income (gross domestic product-GDP) in countries of the Western World.	• Color code a world map showing different GDP levels. Create a profile of specific countries highlighting economic factors (e.g., GDP, productive resources; trade statistics).
• Compare and contrast how education and technology influence productivity and economic development in countries of the Western World.	• Compare GDP levels with literacy rates/levels of educational attainment, use of technology, etc.
• Identify situations in which the actions of consumers and producers are helpful (e.g., education) or harmful (e.g., pollution) to others, inside and outside a country, who are not directly involved in the consumption or production of a product.	• 1) Report on pollution levels in different countries and on ways different countries deal with pollution. 2) Play the role of consumers and producers of products from various countries. Compare points of view.
• Explain how international trade requires a system for exchanging money between nations.	• Analyze the classified ads from a foreign, English-language newspaper. Convert salaries to dollars.

FOCUS: EASTERN CULTURES	GRADE SEVEN
Proficiency Statements and Indicators **Students should be able to:**	**Sample Student Activities** **Students might:**
ECONOMICS **Demonstrate the influence of physical and cultural factors upon the economic systems found in countries of the Eastern World.**	
• Explain how physical geography, specialization, and trade influence the way people earn income.	• Compare the economic roles of family members in selected countries and in rural as well as urban areas (e.g., China, Japan, Egypt, Kenya).
• Explain how increased specialization and trade make countries wealthier yet more interdependent.	• Survey local businesses to discover if they export or import products to and from countries in the Eastern World.
• Explore how different economic systems (traditional, command, market) answer the basic economic questions of ***What to Produce***? ***How to Produce?*** and for ***Whom to Produce***?	• Choose specific countries in which different types of economic systems prevail. In small groups, research and play the roles of producers and consumers in each situation.
• Compare and contrast how education and technology influence productivity and economic development.	• Use reference materials to compare literacy rates in several Eastern countries. Based on the data, develop theories about economic development in each country. Check theories by consulting research materials.

FOCUS: EASTERN CULTURES	GRADE SEVEN
Proficiency Statements and Indicators **Students should be able to:**	**Sample Student Activities** **Students might:**
ECONOMICS continued . . .	
• Describe the level and sources of income (gross domestic product-GDP) in countries of the Eastern World.	• Create a chart comparing the GDP of selected Eastern nations.
• Explain how social institutions, such as religions, influence the economic systems.	• Research a specific social institution (religious, political, educational, etc.) in one country. Join other students in a small group who have researched different groups. Pool information to develop profiles of the selected countries.
• Identify situations in which the actions of consumers and producers are helpful (e.g., education) or harmful (e.g., pollution) to people inside and outside a country, who are not directly involved in the consumption or production of a product.	• 1) Brainstorm a list of ways that specific individual actions are helpful to others. Make a similar list of ways that an action may be harmful. 2) Discuss problems that can arise when pollution from one country affects another. Give examples.
• Explain how extensive international trade requires a system for exchanging money between and among nations.	• Use the exchange rates listed in the newspaper to plan a business transaction or a hypothetical vacation in one or more countries of the Eastern World.

FOCUS: UNITED STATES HISTORY-GROWTH AND DEVELOPMENT	GRADE EIGHT
Proficiency Statements and Indicators **Students should be able to:**	**Sample Student Activities** **Students might:**
ECONOMICS **Identify, describe, and evaluate the influence of economic factors on national development.**	
• Describe economic activities within and among Native American cultures prior to European contact.	• Use maps of North America to trace trade routes and list products exchanged among Native American groups.
• Explain the economic factors leading to the major European voyages of exploration.	• Make charts of items imported and exported to and from the Americas. Trace trade routes on a historical world map.
• Evaluate the role of capitalism in the economic development of the U.S. (e.g., the role of entrepreneurs, private property, self-interest, stock ownership, labor-management interaction.).	• 1) Create and operate a student store. 2) Participate in a stock market game or simulation.
• Explain and evaluate examples of domestic and international interdependence throughout U.S. history (e.g., triangular trade routes, regional exchange of resources, etc.).	• Identify a product produced in the past that is still produced today (e.g., shoes). Research and compare sources of raw materials, production processes, and marketing in the two periods.
• List and explain the basic roles of the government in the economy of the United States.	• List the major roles of government in the economy on a bulletin board. Cut out articles and pictures from newspapers and magazines illustrating each role.
• Trace the development of different kinds of money used in different periods of United States history.	• Develop a display simulating historic currency or using actual examples or replicas of currency. Design new coins and paper currency. Explain the advantages and disadvantages they would have.

FOCUS: UNITED STATES HISTORY-GROWTH AND DEVELOPMENT	GRADE EIGHT
Proficiency Statements and Indicators **Students should be able to:**	**Sample Student Activities** **Students might:**
ECONOMICS continued. . .	
• Outline the development of the banking system in the United States.	• Construct a time line showing the major events in the development of the banking system.
• Identify and explain how new inventions changed the productivity of manufacturing and agriculture.	• Research major inventions that affected life in the United States. Design a portrait gallery of inventors or a collage of significant technological develcpments.

Appendix D

Annotated Bibliography of Selected Curriculum Materials

The following economic education materials are often used by mini-economy teachers. Teachers can borrow most of the materials from nine university centers of economic education located throughout Indiana or from the Indiana Council for Economic Education (ICEE). For more information, contact the ICEE at:

Indiana Council for Economic Education (ICEE)
Purdue University
1310 Krannert Center, Room 221
West Lafayette IN 47907-1310
PHONE (317) 494-8540 FAX 317-496-1505

- **Penny Saved** (1994), **Once Upon A Dime** (1986), **The Story of Money** (1994), **The Story of Inflation** (1985)
  These instructional comic books, which are best for intermediate and junior high students, are excellent resources to use when studying money and inflation. Up to 35 copies are free to teachers through the Federal Reserve Bank of New York (212) 720-6134.
- **Econ and Me** (1986) Video and Teacher's Guide
  This five-part video series is excellent for Grades 2-5. It covers basic economic concepts in a creative, motivating way, and goes along perfectly with the *Play Dough Economics* curriculum. Teacher's manual contains math and language arts activities that integrate economic content. National Council on Economic Education (NCEE). Complete series can be purchased through Purdue University/ICEE at (317) 494-2748. $50
- **Economics and Entrepreneurship: Operating a Classroom Business in the Elementary and Middle School** (1991)
  This booklet describes in detail how to operate a classroom business and also explains the important economic concepts teachers should emphasize. The booklet contains a Pre/Post Test on concepts and an Attitude Survey towards business. Indiana Department of Education (317) 232-9131. $6 (Free to Indiana teachers in inservice programs).
- **Give and Take (1982) /Trade-Offs (1978)** Videos and Teacher's Guide
  These somewhat dated, but very useful video series cover basic economic concepts. *Give and Take* (12 programs) is best for Grades 6-8; *Trade-Offs* (15 programs) for Grades 3-5. Both can be purchased through Purdue University/ICEE at (317) 494-2748. $37 and $50 respectively.

- **Junior Achievement**

  Junior Achievement now has a comprehensive K-6 economics curriculum in which consultants come into the classroom to teach students. *Project Business*, the junior high curriculum, is also available. Contact your local Junior Achievement Office. Indianapolis office number is (317) 634-3519.
- **Lifegames** (1985)

  This booklet describes 80 creative, activity-centered lessons for primary children. The booklet emphasizes four themes: goods and services, specialization and jobs, productive resources, and money/banking. This publication is no longer in print, but may be borrowed from the Indiana Council for Economic Education (ICEE) at (317) 494-8540.
- **Oak Lane Tales** (1986) Video(s) and Instructional Guide

  In this video series of nine 15-20 minute lessons, animal characters in the community of Oak Lane live, work, and play together to illustrate various business and economic concepts. Not animated - filmstrip in video format. Best for Grades 2-4. WRI Education (619) 456-5278. $149 per video or $1,199 a set. Can be borrowed from the ICEE at (317) 494-8540.
- **Teaching Strategies (K-2, 3-4, 5-6): Master Curriculum Guide in Economics** (1994)

  These three booklets provide many creative activities. Many student activity sheets are included. National Council on Economic Education (800) 338-1192. Approximately $30.
- **The Mini-Economy: Indiana Teachers Respond** (1988) Video

  This video addresses questions and concerns teachers have about implementing a mini-economy. Indiana teachers give their candid responses to many penetrating questions. Can be purchased through Purdue University/ICEE at (317) 494-2748. $25
- **The Mini-Economy: Integrating Economics into the Elementary Curriculum** (1987)

  Video documents the use of mini-economies in Indiana schools. The video covers the use of classroom money; the operation of classroom banks, stores, and other businesses; the teaching of basic concepts; and classroom management. Taped on location in five different schools, the video contains interviews with teachers and students intercut with scenes of mini-economies in action. Can be purchased through Purdue University/ICEE at (317) 494-2748. $25
- **Trading Around the World: Introducing Economics into the Middle School Curriculum** (1993)

  This motivating curriculum integrates economics into the middle school world geography/ world history curriculum. Each of the five teaching units contains basic instruction, group activities, and individual projects. Indiana Department of Education (317) 232-9131. $6 (Free to Indiana teachers in inservice programs)
- **Virtual Economics** Interactive CD-ROM

  Let's you access an enormous curriculum library of economic education materials, teaching activities, and lesson plans (over 30,000 pages!), most of which can be printed. Also contains an innovative economics tutorial covering all the major economics concepts. Contact the ICEE. (317) 494-8540
- **Winnie-the-Pooh and the Value of Things** (1977) Filmstrip on Video

  This popular six-part filmstrip/video series covers simple economic concepts applicable to the primary curriculum. Walt Disney Educational Media (800) 295-5010. $99

Appendix E

Inservice Opportunities

The Indiana Department of Education's economic education consultants provide a wide variety of services to school corporations, including specialized inservice on all aspects of the mini-economy program. The inservice models below describe three inservice possibilities.

Model 1: Mini-Economy Awareness Program

Purpose: To introduce the mini-economy program
Time: One hour
Content: Video or slide presentation of a mini-economy in action, general overview and rationale for using a mini-economy

Model 2: Starting a Mini-Economy

Purpose: To learn how to implement a mini-economy
Time: Three hours
Content: How to get started, expanding the mini-economy, practical considerations

Model 3: Economics and the Mini-Economy

Purpose: 1. To introduce basic economic concepts taught in a mini-economy
2. To learn how to implement a mini-economy
Time: Ten hours
Content: How to start a mini-economy, introduction to basic economic concepts, the mini-economy, practical considerations, other materials

Northern Consultant

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1310 Krannert Center
Purdue University
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Southern Consultant

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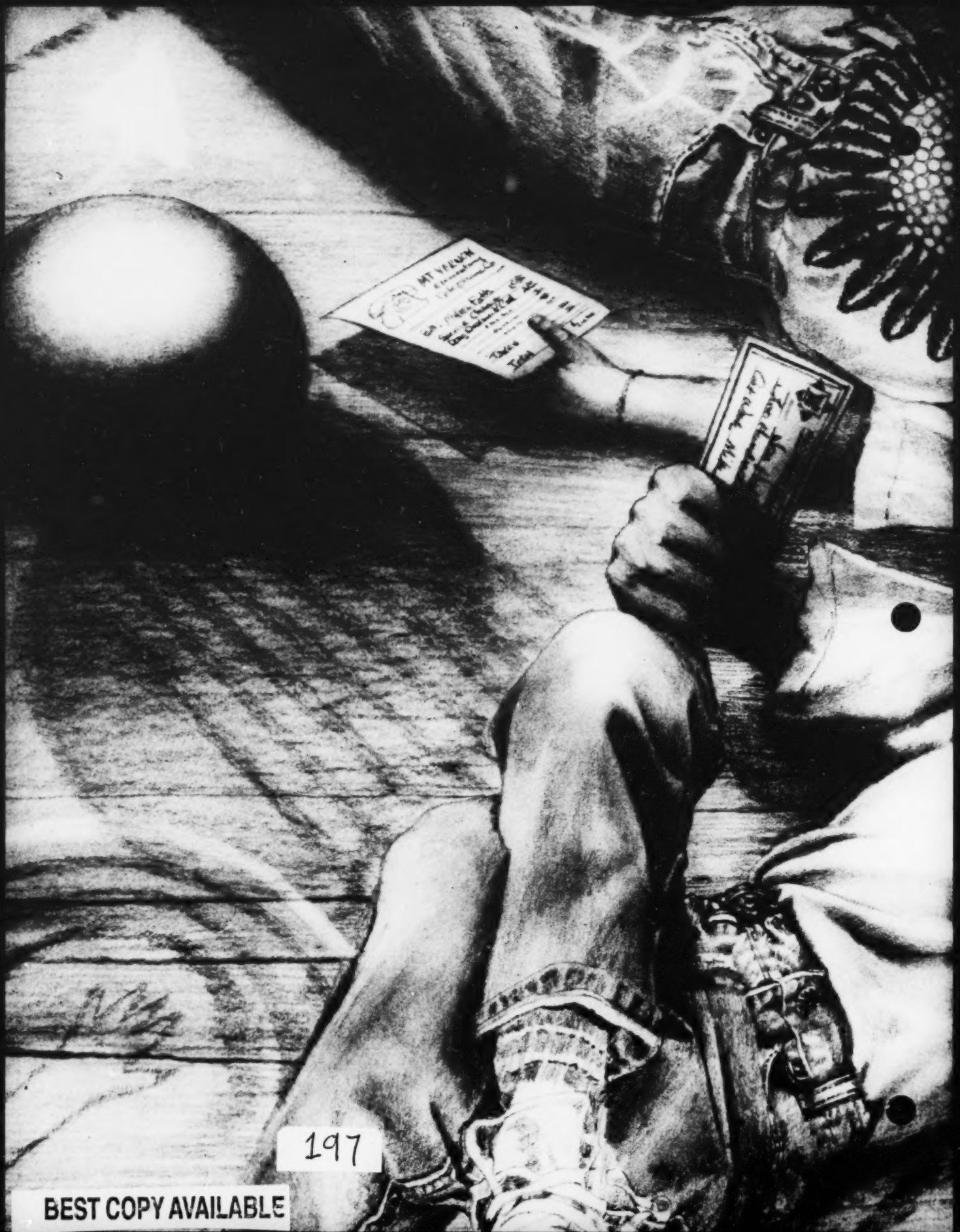
Inquiries regarding compliance with Title IX may be directed to the Human Resources Director, Indiana Department of Education, Room 229, State House, Indianapolis, IN 46204-2798, or to the Director of the Office of Civil Rights, Department of Health and Human Services, Washington, DC; **Dr. Suellen Reed, State Superintendent of Public Instruction.**



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